A COMPARISON OF TEXAS PRE-SERVICE TEACHER EDUCATION PROGRAMS IN ART AND THE 1999 NATIONAL ART EDUCATION ASSOCIATION'S STANDARDS FOR ART TEACHER PREPARATION

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Texas programs in pre-service art teacher preparation vary little. Since 1970, the National Art Education Association (NAEA) has created voluntary standards in hopes of decreasing variability among programs. In 1999, the NAEA published *Standards for Art Teacher Preparation,* outlining 20 content areas that art pre-service programs should provide their students. To obtain information on the implementation and the extent to which these 20 standards are being implemented, a questionnaire was sent to all programs in Texas. The 20 standards were the dependent variable for the study. The four independent variables used in this ex post facto study were: the size of the institution where the program exists; the number of full-time art faculty; the number of full-time art education faculty; and, the number of undergraduate art education students who graduated last year. The 20 standards or provisions were scored on a Lickert scale with six options: *zero* (not taught) to *five* (comprehensively taught). The response size (N = 23) was 47% of the state's 49 approved programs. The results from the survey suggest no significant difference among programs. However, the results showed a significant difference in the number of provisions taught between programs with no art educators and those with 1 to 3 art educators. One art educator seemed to increase the number of pedagogical provisions taught but did not increase the extent or enhance the degree to which each provision was taught.

A comprehensively taught response to the NAEA provisions on the questionnaire

was further investigated through analysis of catalog course descriptions and correspondence with participants. The results are estimated in credit hours and indicate that there may be a point where time on task decides the limit that constitutes a comprehensive preparation. Perspectives on content are discussed and regarded as too subjective to define comprehensive preparation. Comprehensive time on task varies with content, which may imply an unconscious marker of time shared by educators that defines a comprehensive preparation for each provision. Changing and local standards in art pre-service programs may have produced a range of interpretations regarding the meaning of “comprehensively taught.”

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CHAPTER 1

INTRODUCTION TO THE STUDY

The concern for education in the United States is based on the security and needs of a democracy. The quality of life, government, and the economy in a democracy depend directly on the quality of the education of its citizens and improving education in the United States is a perennial national discussion. According to O'Donnell (1991) the debate on education's failure started in 1875 and has "sustained a negative assessment much of the time regardless of the decade . . ." (p. 1).

In the mid-20th century, curriculum reform was thrust into the national spotlight by the success of the Soviet rocket program. This new shock, coupled with the persistent skepticism of economic competitiveness galvanized American political, business, and educational leaders to act. Out of those cold war uncertainties the accountability movement of the 1970s grew. In 1983 *A Nation at Risk* was published which gave rise to the "standard" movement as a national policy issue. *A Nation at Risk* "implied that lax standards in American schools had led to a unilateral disarmament of the nation in world economic competition" (Levin, 1997, p. 2).

In response, a commission comprised of governors, members of congress, state policy makers, researchers, and educators developed a system of standards and assessments known as Goals 2000 (Lewis, 1995). *Goals 2000: Educate America Act* sets content and performance standards in math, science, history, civics, language arts, geography, the arts, and foreign languages. As noted by Lewis (1995) content standards

emphasize Alearning content more through critical-thinking and problem-solving strategies than through rote learning of discrete facts . . . Performance standards define the levels of learning that are considered satisfactory@ (p. 746).

Cohen (1995) suggests that in order to be useful, performance standards need to show a range of quality in student work so students, teachers, and parents can tell the difference between Aadequate and inadequate student work@ (p. 757). Performance standards should explain Awhat sophisticated work looks like, what unsophisticated work looks like, and what makes the difference@ (Cohen, 1995, p. 755). Unfortunately, if no examples of sophisticated work exist to place alongside unsophisticated work there is no basis for figuring out what makes the difference. Lacking the range of possible results, teachers, students, and parents may find performance-based standards deficient as a key element of instructional guidance (Cohen, 1995).

In art education, knowing the range of possible performances is a particularly acute problem. What does a universally sophisticated or universally unsophisticated performance in art look like and, what should the response to art be at various grade levels? Perhaps the answer to these questions was given by Stake (1975) who wrote, AThe purpose of art education can be legion. Probably more than in most subject matter areas, the range of potential goals is extensive and eminently visible@ (p. 62).

The same wave of standard reform that has influenced elementary and secondary education through Goals 2000 development and legislation is influencing teacher preparation programs. As noted by Lewis (1995) standards for teachers are being propelled by several groups.

> . . . . the work of the National Board for Professional Teaching Standards (NBPTS), state compacts, and the National Council for Accreditation of Teacher Education (NCATE), a national effort to make education a recognized profession - from pre-degree programs through licensure and career development - is turning teaching into a standards-based profession. (p. 746)

In 1999, the National Art Education Association (NAEA) adopted content and performance-based standards for art teacher pre-service programs. The NAEA=s *Standards for Art Teacher Preparation* identifies three areas of interest: (1) the Standards for the Art Education Program which is the focus of this study and describes what programs should provide students; (2) the Standards for the Art Education Faculty which describes faculty responsibilities in pre-service programs and continuing professional activities; and, (3) Standards and Skills for the Art Teacher Candidates. The NAEA=s Standards for the Art Education Program utilized for this research covers two areas: art content knowledge and pedagogical approaches. From these two categories the two standards were created consisting of twenty provisions (See Appendix A) that describe what art programs should provide their students and what students should know and be able to perform, regardless of hours taken and other curricular preparations. Assessment of the student resides in their performance as an art teacher rather than listing courses taken in a teacher preparatory program (NAEA News, February, 2000). Unlike the pre-service programs of the past where requirements were attached to increments of time and predictions could be made about program compliance to standards, these new performance-based standards give no time frame for mastering standards.

The NAEA *Standards for Art Teacher Preparation* identify twenty program provisions under two standards that, in a broad way, suggest the content of an art teacher preparation program that is consistent with standards set by four additional professional bodies: the National Association of Schools of Art and Design (NASAD), the National Council for the Accreditation of Teacher Education (NCATE), the National Board of Professional Teaching Standards (NBPTS), and the Interstate New Teacher Assessment and Support Consortium (INTASC) (NAEA, Brochure, 2000). The NAEA *Standards for Art Teacher Preparation* are performance-based and allow universities greater room for innovation and diversity in how art teacher education programs are structured by assessing their outcomes rather than merely regulating credit hours to be taken. This approach to standards resembles licensing and certification procedures in other professions that also require an approved internship program and graduation from a professionally accredited institution (NAEA News, February, 2000).

Historical Philosophical Schism in Art Education

Art education=s standards have been problematic for centuries. As far back as Plato (Tarnas, 1991) and Aristotle[1] art=s educational outcomes have been in question (Efland, 1990). The debate involving standards for art programs has continued down through the centuries. In every time period and institution art education=s content, approaches and outcomes were changed to meet the demands of society and society=s patrons. Throughout history, art was seen as a vehicle to teach lessons in other areas such as religion and values, nationalism and patriotism, and production and marketing. In

[1] Plato thought the ultimate reality was ethical, rational, and aesthetic. Through beauty we are drawn toward the knowledge of the true and the good. Aesthetics, as Plato saw it, was a way to other knowledge. Aristotle thought that to make art, one already had to know the dynamics of nature and human psychology.

many ways, art education was dominated by the Platonic view - art as a means to achieve other goals or the instrumental rationale.

Currently, through the discipline-based approach it seems that art education is finally being taught for its own educational merits - art education as an end in itself or the essentialist rationale. Yet, art education still retains much of what Eisner (1998) describes as ancillary outcomes.[2] Reinforcing the ancillary historical view of art education are people in political and educational offices who view art in a supporting role within general education. William Bennett[3] supported art education as a means to teach values and citizenship in a democracy. He did not, however, find art education to have intrinsic educational significance. Instead, Bennett (1988) cited a past Harvard University president who said that in the campaign for character, no auxiliaries are to be refused (p. 5).

Multiple outcome theories and rationales in art education are further bolstered by the child-centered and discipline-based approaches to art education which, in many cases, take divergent directions toward outcomes. The child-centered approach to art education has a long heritage and is based on the works of Friedrich Froebel, James Sully, Franz Cizek, Siegfried Levinstein, Max Verworn, Walter Krotzsch, George Luquet, and Karl Buhler, which coalesced and culminated in the work of Viktor Lowenfeld who applied developmental stage theory to children and their artworks (Michael, & Morris, 1984). In the Lowenfeldian approach the art teacher is a facilitator or catalyst (Jeffers, 1990). The

[2] Ancillary outcomes are transferable skills employed in the perception, creation, and comprehension of the arts to non-art tasks.

[3] William J. Bennett was U. S. Secretary of Education in the Regan administration.

teacher is to nurture the student without imposing adult concepts on the child. The art product is subordinate to the process, because Ait is not the adult=s answer but the child=s striving toward his own answer that is crucial@ (Lowenfeld & Brittain, 1975 p. 11). The desired outcome for the child-centered approach is creative and mental growth which is essentially divergent because children mature at different rates. In this approach, assessment of student work is discouraged (Clark, Day & Greer, 1989). Pre-service teacher candidates immersed in child-centered approaches will develop different philosophies, theories, methods, and teaching habits than those candidates who are prepared in programs geared toward discipline-based art education.

The discipline-based approach, first defined in art education by Manual Barkan in 1962, views art teachers as instructors of art disciplines who structure content and teach students to pursue art like practitioners in art production, art history, art criticism, and aesthetics. Within this approach assessment is convergent to an educational objective based on the knowledge of professionals in each discipline. Accordingly, Clark, Day, and Greer (1989) found that child-centered and discipline-based approaches had Afundamentally different philosophical foundations and different psychological orientations@ (p. 135).

Establishing Contemporary Standards

Child-centered and discipline-based approaches are parts of art education=s history. Whether or how much each approach is represented in the curriculum depends on the philosophical position held by individual instructors or the prevailing governing state or local authority (Hammond & Cobb, 1996). The duality between child-centered and

discipline-based approaches in art education alone could create variations in art teacher preparation programs, and yet, there are other contended aspects such as time allotted each requirement (Rogers & Brogdon, 1990); contents (Sabol, 1998); art methods (Jeffers, 1993); art history (Kleinbauer, 1989); art criticism (Geahigan, 1999); aesthetics (Hamblen, 1988); diversity issues (Anderson, 1996; Dufrene, 1995; Smith, 1994); balancing and integrating the disciplines (Wilson, 1997); formalism (Pepper, 1945) vs. contextualism (McFee, 1971; Becker, 1982); essentialism vs. instrumentalism (Duke, 1999); and so on.

As Davis (1990) noted, content and requirements for pre-service art education programs can be implied from studies over the last sixty years (Ahrens, 1964; Arnold, 1976; Barclay, 1963; Beelke, 1954; R. Davis, 1986; De Francesco, 1943; Diffily, 1963; Frattallone, 1974; Goldwater, 1943; Hager & Ziegfeld, 1941; Leach, 1963; Manzella, 1956; Nateman, 1986; Perogallo, 1978; Rogers & Brogdon, 1990; Sevigny, 1989; Wessel, 1964). However, a common curriculum has not yet emerged that addresses both art content knowledge and pedagogical requirements. But in retrospect, these studies have contributed in building the consensus for national standards through the NAEA.

Galbraith (1996) identified the fine arts knowledge base integral to teacher preparation as: Athe creation and expression of ideas through the study of different media; an understanding of means of aesthetic and critical inquiry; and, an awareness of the historical and cultural significance of art works@ (p. 182). These four major areas of art content knowledge are embodied in the current national standards.

Aware of differences in art teacher preparation the NAEA produced voluntary national standards in 1970, 1979, and the current 1999 edition which states unequivocally that Athe quality of art teacher preparation programs varies widely with some colleges and universities continuously improving and updating their programs while others graduate students without strong professional preparation@ (p. 1).

Today in art education there is a movement to establish curriculum commonality through content and performance-based standards. Under the NAEA *Standards for Art Teacher Preparation* there are two standards for programs that reflect this approach. Standard 1 focuses on the content of the visual arts and outlines eight provisions for a pre-service program. Provisions found under Standard 1 address breadth of studio opportunities; depth in at least one studio area; art history; art criticism; aesthetics; and, the theories and philosophies impacting contemporary art forms. Standard 2 concentrates on knowledge of the theory and practice of art pedagogy and is outlined in twelve provisions. Provisions under Standard 2 address multiple theories and approaches to art instruction; the development of a personal rationale for art in education; child, adolescent, and young adult developmental stage instruction; knowledge of child development in special needs populations; student teaching in a variety of classroom settings; pedagogical theories to reflect and refine curriculum and instruction; the development of curriculum inclusive of the four disciplines reflecting national, state, and local standards; knowledge of methods, materials, and resources for various educational settings and for different levels of planning instruction; develop the importance of creative classroom environments; skills to develop interdisciplinary art curriculum;

assessment methods to evaluate student work, their own teaching and their own program; and, journal writing to reflect on academic and clinical experiences for effective teaching and professional growth. Altogether there are 20 provisions for art teacher preparation programs listed under Standards 1 and 2.

There were additional issues addressed by the NAEA in 1999 that focused on the utilization of technology and museums and community resources in art teacher preparation programs but these issues were not included in the 20 provisions listed in Standards 1 and 2. Their exclusion makes the tacit distinction between actual provisions and ancillary concerns.

A problem with teacher preparation lies in its variability (NAEA, 1999; Hammond & Cobb 1996; Gore, 2001). In art education, teacher preparation is an increasing concern now that the arts have been designated as a core subject area within general education. Areas of variability within art pre-service programs are: art content knowledge and pedagogical approaches; changing voluntary national standards and the extent to which these standards are being accepted; and, state and local control of education in the United States. Hammond & Cobb (1996) state, Abecause no universal standards for either licensing or accreditation are enforced, the range in teacher preparation programs is wide@ (p. 38). They cite that differences in preparation programs are due to different conceptual orientations and levels of quality, such as: differences in learning about child development; differences in subject-specific and generic approaches to pedagogy; and, differences in curriculum development and student assessment. Gore (2001) speculates:

> It would appear that teacher educators and reformers of teacher education agree on what it means to prepare teachers. However, when it comes to the structure and substance of programs, affiliations with different traditions in teacher education clearly cause tension among us. (p. 124)

Since the designation of core curriculum status by *Goals 2000: Educate America Act*, art education has been given a chance to demonstrate its tremendous epistemological value. Inconsistency among art programs and less than adequate art pre-service content must be addressed as a prerequisite for the continuation of arts education core status.

Purpose of the Study

Variation is natural and unavoidable. Oscillations from a standard are normal but the degree to which programs sway back and forth from a particular standard can range from high above to far below an established benchmark. The purpose of this study will be to describe Texas programs in regard to their variability in relation to each of the NAEA provisions in Standards 1 and 2.

Specifically, the purpose of this study is to compare pre-service teacher education programs in art in Texas to the NAEA *Art Teacher Preparation Standards* 1 and 2, comparing programs to standards and programs to each other. For those provisions that are taught comprehensively by respondents, the study will explore how this is accomplished.

Currently there are no data about the extent to which art pre-service programs in Texas are complying with the voluntary NAEA *Standards for Art Teacher Preparation*. Without current data describing the art and pedagogical content of pre-service teacher

education programs in Texas, it is not possible to evaluate the extent to which programs are offering a comprehensive preparation for future teachers. This, in turn, has implications for the consistency of art instruction in elementary and secondary schools. If art education pre-service programs vary in content and pedagogical instruction, then graduates from these programs may vary in their knowledge and their ability to teach art.

Another purpose for this research was to understand what it means when educators designate an NAEA standard to be comprehensively taught. An attempt was made to find a consensus in meaning for the term comprehensively taught. Or in the absence of a general understanding, develop a range in meaning.

Statement of the Problem

The problems set forth in this descriptive study are focused on the variation inherent in art teacher preparation programs when national standards in content knowledge and pedagogy are voluntary and state programs are not equal in size regarding pre-existing demographic factors such as: the size of the institution where the programs exist; the number of full-time art and art education faculty; and, the number of students graduating each year. This study will compare the extent to which the performance-based outcome standards, as outlined in the 1999 NAEA's *Standards for Art Teacher Preparation,* are being implemented or not implemented in pre-service teacher education programs in art in Texas, and compare Texas programs to each other. For those provisions that are designated comprehensively taught, the study will explore how this is accomplished. This study, in practical terms, will help in identifying the similarities and differences between state art teacher preparation programs, using the NAEA *Standards*

for Art Teacher Preparation, Standards 1 and 2, as the benchmark and will provide insight into how programs perceive they are teaching specific provisions comprehensively.

The comparisons will provide information on the extent to which colleges and universities in Texas are implementing or not implementing art content knowledge and pedagogical standards. Implicit within these comparisons will rest program equity and to some extent quality among art programs in the state. The concept of quality used here pertains to the adherence to Standards 1 and 2 of the *Standards for Art Teacher Preparation*, which reflect a common curriculum formed from five professional education organizations: NAEA, NASAD, NCATE, NBPTS, and INTASC.

Although the educational organizations mentioned above helped in creating the 1999 national program standards in art teacher preparation, they came to no agreement on the amount of time required for mastering each provision nor did they illustrate a range of possible adequate performances for licensing art education teachers. Gore (2001) noted that reformers of teacher education agree that reform is needed but they disagree on the structure and substance of that reform.

Research Questions

The specific research questions to be addressed are:

- Which provisions of Standard I and 2 of the 1999 NAEA *Standards for Art Teacher Preparation* received the most attention in the pre-service art teacher education programs in Texas? Which provisions received the least attention?

- If a provision was taught, to what extent was it taught?
- What provisions of Standard 1 and 2 of the 1999 NAEA *Standards for Art Teacher Preparation* are taught in pre-service art teacher education programs in Texas?
- Was there a significant difference in the provisions taught and the extent to which they were taught or the attention provisions received in the pre-service teacher education programs in art in Texas by: (1) the size of the institution where the program exists? (2) the number of full-time art faculty? (3) the number of full-time art education faculty? and (4) the number of art education students graduated last year?
- If a provision was perceived to be taught comprehensively, how was this accomplished?

Definitions

For the purposes of this study, the following definitions are used:

Art disciplines: art production, art history, art criticism, and aesthetics.

Pre-service: Teacher preparation prior to entering the teaching profession.

Standards: NAEA program provisions to be taught in pre-service programs.

Provisions: Subsets of the NAEA *Standards for Art Teacher Preparation* that define each standard and provide guidelines for teacher preparation programs.

Implementation: Teaching provisions and the extent to which provisions are taught.

Delimitation

This study will confine itself to pre-service art education programs in Texas authorized by the State Board for Educator Certification (SBEC). This study will describe Texas art pre-service programs using the 20 provisions outlined in two standards by the NAEA 1999 *Standards for Art Teacher Preparation*.

Limitations

This study will be confined to Texas art pre-service programs. The findings will not be generalized to other states or other educational disciplines.

Significance of the Study

Change is coming to art pre-service programs in Texas. And for that reason there is a need to describe the current program conditions for future investigations. Data are needed regarding current programs as a necessary reference point for program development and research. Without base line data, future studies will lack context and perspective. The significance of this study resides in its description of current programs based on voluntary standards prior to the implementation of mandatory state standards. This study and the approach that it takes to investigate pre-service programs using standards as benchmarks provides a foundation and an avenue for consistent research in Texas art pre-service programs.

An examination of Texas pre-service programs in art in relation to the national standards is significant for several reasons. First, a national standard applied to state art pre-service programs may identify inequities in programs regarding the number of provisions that are offered and the extent to which provisions are taught among art

departments within the state. This type of comparison can help in correcting the inequities of students graduating with different art content knowledge and pedagogical skills. The study illuminates the concern expressed by Marantz (in Rogers & Brogdon, 1990) who suggested whether or not small art departments can reasonably be held to the same standards as large university programs. Second, the study formulates a description of a general pre-service program in art in Texas through the evaluation of all art pre-service programs as they relate to the NAEA *Standards for Art Teacher Preparation*. This general description can be used as a benchmark to gauge the progress toward satisfying future standards. Third, a descriptive study can help students identify pre-service programs in the state that update and assimilate contemporary art education standards. A student can assume that the quality of an art pre-service program is determined by the number of NAEA provisions addressed in that program and the extent to which those provisions are taught. The more provisions included and the more attention they receive, the higher the quality of preparation. Finally, a descriptive study can help art education faculty and administrators adjust and update their programs through the identification of program deficiencies and strengths in comparison to the national standards and to other schools in Texas.

The significance of this study resides in its description of current programs based on voluntary national standards. This study provides a valuable reference for continuing research toward consistency in the preparation of art teachers in the State of Texas.

Also this study contributes to finding an elementary definition for the term, comprehensively taught. A collective understanding for the concept Acomprehensively

taught@ can help solidify the designation within art education and produce a general definition using Atime on task@ as an avenue of agreement. Each provision has different Atime on task@ limits, which makes the comprehensively taught definition dependent on content. A collective understanding for comprehensive preparation can be a range of time in the form of credit hours contingent on the content of each provision.

CHAPTER 2

REVIEW OF LITERATURE

Overview

While reviewing art pre-service literature it became obvious that a new approach to research was needed to address the new program standards created by the National Art Education Association (NAEA). In 1999, the NAEA established standards using contemporary theories in art content knowledge and pedagogical methods, which negated the 1979 standards. The following review of research is premised on the NAEA standards because the NAEA is the premier national arts education organization and, since 1947, the voice of art education in this country. It is from this history and expertise that this research is based.

Because the 1999 NAEA standards are new, research based on their current structure was not found in the literature. Thus, in the absence of research utilizing the 1999 standards as a model it became necessary to review past standards and the research literature associated with them. That literature was related to the 1999 standards to articulate the varied theoretical approaches for each provision. In the past, art teacher pre-service graduates and pre-service program assessments measured student readiness to teach in terms of credit hours. The 1999 standards are performance-based and delineate what programs should provide students in terms of knowledge, skills and approaches. (See Appendix A)

Art teacher preparation research is scant and is confronted with the same ambiguities as research in general teacher preparation. According to Yarger & Smith (1990) Ait seems that the [research] agenda is specific to the individual author: there is no consensus on what research is most important in teacher education or where to begin@ (p. 26). With this in mind, the author approached this research and literature review using the 1999 NAEA *Standards for Art Teacher Preparation* as a guide. The new standards have a different measure of program content, which requires a new approach to investigation. This new avenue of investigation uses the 1999 national standards as a way to assess state programs.

The focus in art teacher preparation programs as outlined by the 1999 NAEA standards places the emphasis on what art pre-service students should know and do, regardless of hours taken in specific course work and other curricular preparations concerning content knowledge in the visual arts. This is a major shift in emphasis in the reform movement since 1994 regarding student standards and, is now being initiated in teacher preparation programs (personal communication Thomas A. Hatfield, 8-19-00). The shift means that the new program standards have no credit hour requirements.

The 1999 NAEA program standards have two standards. The first standard addresses the content of the visual arts through eight provisions and is derived from the discipline-based approach Abuilt on the conceptual foundation for the new content of art study at the Penn State Seminar@ (Sevigny, 1989, p. 101) in 1965. This concept bases the study of art on four disciplines: studio production, art history, art criticism, and

aesthetics. The second standard addresses the pedagogy of art through twelve provisions and will be discussed later in this review.

Standard One

Throughout art education=s history studio production has dominated art pre-service programs (Davis, 1990; Lovano-Kerr, 1985; Rogers & Brogdon, 1990; Sevigny, 1989; Smith, 1995; Zimmerman, 1994a). Within the context of studio preparation, the issue of depth and breadth of studio work included in the preparation of pre-service art teachers has been a continuing concern. Breadth focuses on the foundational importance the studio disciplines have on the understanding of art while depth addresses the importance of having an in-depth knowledge in at least one specific studio area.

Spratt (1989) believed that producing art is paramount to the understanding of art because through direct experience students gain insight into materials and techniques, develop perceptual skills, and imagination. Eisner (1998) pointed out that art production refines aesthetic awareness, makes connections between content and form and gives the student a feel for what it means to transform their ideas and emotions into art forms. These are the experiences, skills and knowledge pre-service students need to acquire for a better understanding of art and art education. ASuch experience can heighten appreciation of the efforts and accomplishments of others . . . @ (Spratt, 1989, p. 198).

With the prodigious amount of studio knowledge, techniques, approaches, and materials to be learned by the pre-service student, the NAEA, in 1970, placed the major portion of its standards on the studio discipline. At that time, the NAEA published *Guidelines for Teacher Preparation* which, Apromoted 27 semester credit hours as a

minimum preparation for studio, with 39 hours a more acceptable standard@ (Sevigny, 1989, p. 118).

In 1979, the NAEA standards were revised under a new title *Standards for Art Teacher Preparation Programs,* which reduced the requirements for studio program standards. The NAEA recommended only a minimum of 21 semester hours in studio while 30 hours were considered the more acceptable standard.

From 1970, to 1979, minimum studio requirements declined by six semester hours going from 27 hours in 1970, to 21 hours in 1979. The more acceptable standards also declined by nine semester credit hours going from 39 hours in 1970, to 30 hours in 1979. However, since the end of the 1970=s pressure on program standards to increase minimum semester hours in studio preparation has increased. This is due in part to the widening incorporation of new materials and technologies into the studio program. Zimmerman (1994a) using surveys conducted since the middle 1980=s Afound that most changes in art education programs were primarily additional studio and computer graphics courses@ (p. 81). Zimmerman also found that the average number of studio hours required for certification in 1994, was 56 hours. That is up from Arnold=s (1976) report of 35.6 hours.

Diffily (1963) compared two studies to determine change in studio course requirements over time. He looked at a survey conducted by Hager & Ziegfeld (1941) and a survey from 1962. His findings showed that little change in studio requirements took place over the 21 year period. The median requisites for studio in 1941, was 45.5 credits; in 1962 it was 44 credits. Another study conducted by Kundis (1954) involving

280 colleges, universities, and professional art schools in the United States found the typical student in art education completed 38 hours in studio preparation. The 1999 NAEA standards for breadth and depth of studio instruction do not set minimum or maximum credit hour requirements.

The 1999 NAEA in-depth studio provision addresses the issue of advanced in-depth study within the studio discipline, alone. This is a departure from the 1979 NAEA program standards that stated in-depth study could apply to other art disciplines as well. Citing Rogers & Brogdon=s (1990) study, 70% of the 169 higher education institutions that took part in their survey indicated they met the advanced in-depth standard. This study applied the 1979 standard, which allowed not only studio production, but also, art appreciation and art history as possible options within the six to nine semester hours recommended for advanced in-depth study. The result in the Rogers and Brogdon study does not differentiate among the options nor discerns what portion of that 70% represents advanced studio specialization. Hence, the exclusivity to advanced studio study in the current 1999 NAEA standards may be viewed as an expansion of the studio discipline within pre-service program standards.

ALearning in this domain [art history] includes a broad range of topics. Indeed, it would be possible to study much of the history of the world simply through the study of art history@ (Day, 1985, p. 237). Art history standards of the past included different philosophies of art, past and contemporary art forms, theories of criticism, and aesthetics as well as art history (Lovano-Kerr, 1985; Rogers & Brogdon, 1990). The art history component within past pre-service programs had several content areas to be taught.

Lovano-Kerr (1985) observed, Amore often than not, it is assumed that students are reasonably well-versed in the content and skills of each of these disciplines@ (p. 221).

In their research Hager & Ziegfeld (1941) found the range in the art history requirements of 50 institutions to be one to eight semester hours. Diffily=s (1963) study showed art history requirements ranged from 3 to 18 semester hours. The 1979 NAEA standards called for a minimum of nine semester hours in the art history component but recommended 12 to 15 hours as closer to the ideal. Miller (1983) wrote that a typical undergraduate degree in art education consisted of only six hours of art history course work which Ais not sufficient to give the new art teacher a grasp of this very large subject area@ (p. 37). Miller recommends that the art history requirement should be increased to a minimum of 18 hours. AThis would give students confidence that they understand the background and current developments in the world of art@ (p. 37).

The 1999 NAEA art history standards are outlined in three provisions that emphasize the discipline=s contextual perspective. Analysis of the three 1999 art history provisions found they all express diversity, respect, and empathy for all artists and focus learning on sensitivity to racial, linguistic, religious, and gender issues. These three provisions take on the contextual aspects of art history in which social influences that surround art production are studied.

Kleinbauer (1989) found that Athere are two modes of inquiry, [within art history] the intrinsic and extrinsic@ (p. 209). The intrinsic factors are concerned with connoisseurship, style, iconography, and function. Of these intrinsic modes of inquiry only Astyle@ is mentioned in the 1999 NAEA art history standards. In referring to style,

Dufrene (1995) believes that formal and stylistic analysis is insufficient to study art outside of one=s own culture.

Included in the 1999 art history standards to a large extent are what Kleinbauer describes as extrinsic factors that surround and shape art. Here are found the elements commensurate with the 1999 standards, such as, circumstances surrounding the artwork=s time and place, patronage, artistic biography, political, economic, scientific, religious, social, and cultural conditions.

The contemporary form of art history as outlined by the 1999 NAEA has selected predominantly extrinsic contextual approaches of inquiry. The missing intrinsic mode in current standards may not include all formal approaches to help in the investigation into historical interpretation. Basing interpretation on context without formal consideration is a postmodern characteristic (Fehr, 1994; Wolcott, 1994).

Wolcott (1994) points out that Apostmodern art admits of a full range of conditions, experiences, and knowledge beyond the [art] object itself. Thus the postmodernist approach demands an interpretive emphasis different from that of the formalist tradition@ (p. 16).

The 1999 NAEA art criticism standard stresses the importance of variety. This may be due to the fact that whatever critical model is being employed, the critic=s interpretation and evaluation is always based on the fluid constructs of social values and personal subjectivity.

The methods art critics use are diverse and vary throughout history. Critical methods vary because society and social values change. Social values Abecome the

standards, or reference points, out of which the critical methods of description and interpretation develop and from which evaluation judgments are made@ (Clark, Day, & Greer, 1989, p. 154). AThe values projected by the work of art . . . in relation to society and social values . . . [view] art as both a constructor and a reflector of those values@ (Risatti, 1989, p. 220).

The models for approaching art criticism vary. Geahigan (1999a) wrote that there are two types of descriptions in art criticism, the ordinary and technical. The ordinary model is a free mix of description, interpretation and judgment. The language used is colorful, and stirring and critics give a discriminating account rather than a comprehensive description of the art object. Critics infused description with personal judgments, create interpretations, and make evaluations simultaneously. The ordinary model in pre-service programs fits the discipline-based qualities that mimic the professional critic. The students reflect upon the artwork in terms of their own beliefs, feelings, attitudes, and values (Geahigan, 1999b).

Conversely, Geahigan (1999a) found technical criticisms to be neutral statements of fact that are either true or false. The description is separate from interpretation and evaluation, although, evaluations and interpretations must relate back to the visual description as proof. The technical model incorporates a dispassionate systematic descriptive approach to visible features of art. This is the straightforward method to critical discussion.

Art criticism=s primary purpose is to derive meaning from art. Risatti (1989) found two types of critical discussion and analysis for meaning - the internal and

external. Internal qualities of analytical discussion focus on the internal composition of an art object: Aiconographic, narrative, [and] symbolic,@ (p. 222). In general, all formal aspects are reflected upon. The external type of critical analytical discussion views the art work from a larger context, such as, art historical, historical, psychological, political, and ideological influences. The analysis of the internal formal elements are then linked to contextual external analysis to create possible meaning. ACritical analysis of possible internal and external meaning of works of art should be keyed to the other academic subjects in the curriculum@ (Risatti, 1989 p. 223).

Approaches to aesthetics in an art pre-service program are found in Hamblen (1988) who cites four approaches to aesthetics in the curriculum: historical philosophical; aesthetic perception and experience; aesthetic inquiry; and aesthetic for critical, social consciousness.

The historical philosophical approach is, according to Hamblen, the most structured dealing with styles in aesthetic dialogue and schools of aesthetic thought. The content of this approach is structured to be commensurate with the general practices of classroom education. Aesthetic perception and experience are the most popular approaches to aesthetic study because studio is the most prominent part of an art education. This approach is an activity that is experienced through studio production. Aesthetic inquiry consists of an examination of what is said about art. Aesthetic for critical, social consciousness examines statements made about art for their socio-political and conscious shaping implications.

Aesthetic philosophies evolve for the same reasons change takes place in the other three disciplines of art. Art and its disciplines change because knowledge and values change. Throughout world history, new perspectives and knowledge has fomented change in values that influence art, culture, education and ultimately society.

The last provision of art content knowledge is a combination of disciplines but the emphasis is placed on two: art history and art criticism. These two disciplines make up the component or provision known as art appreciation (Lovano-Kerr, 1985; Rogers & Brogdon, 1990). The 1979 NAEA standards recommended 9 to 15 semester hours for art history, which includes to varying degrees art criticism and aesthetics. According to Rogers & Brogdon (1990) this was Ato provide art teachers with the ability to include in their classroom curricula an art appreciation component@ (p. 169).

The four disciplines: production, art history, art criticism, and aesthetics make up the gestalt of art knowledge. These disciplines overlap or are suppose to overlap into a seamless holistic subject within the curriculum (Wilson, 1997). Besides integrating the disciplines there is also concern for balance within the program among disciplines. The aggregate of literature supports overwhelmingly the dominance of the studio discipline within art pre-service programs. Therefore, balancing the four disciplines in art teacher preparation programs remains a distant goal (Davis, 1990; Maitland-Gholson, 1986; Zimmerman, 1994a).

Standard Two

Listed under Standard 2 are twelve provisions that articulate pedagogical content. Addressed most often are provisions that direct the program toward the understanding, study, development, knowledge, theories and reflective practices in curriculum, instruction and professional growth. For purposes of literature review, provisions are grouped by related content.

The evolution of art and culture has produced, over time, multiple approaches for teaching art. The NAEA=s concern for a multiple approach for teaching art in pre-service programs acknowledges shifts in artistic and educational philosophies that change instructional approaches. Throughout time, art education=s evolution reflects human adaptability to a changing intellectual understanding of the universe. At each moment along the way there were competing philosophies, values, and goals that challenged or supported the status quo. At times new philosophies, values, and goals were assimilated into the conventional wisdom, which then modified understanding, art, education, and society.

Western epistemology has vacillated over the ages between the polar compliments known as romanticism and science. This bifurcation can be traced back to the faith-reason division of the medieval period, followed by the religion-science divide of the early modern era, which evolved into the humanist-science philosophies of today (Tarnas, 1991). The dichotomization of epistemology encompasses the Western worldview or as Tarnas calls this schism, Athe double truth universe@ (p. 376).

The reality of one=s educational theories and the nature of knowledge is perhaps a personal choice. Within education Maitland-Gholson (1988) describes this choice as assumptions made about teaching and learning. The choices educators make fall somewhere on the romantic/scientific, inside-out/outside-in, mind/matter, subject/object, idealism/empiricism continuums.

The array of art education theories that the pre-service student should be familiar with range on continuums from child to discipline centered models, contextual to formalist approaches, and from expressionist to reconstructionist streams of art educational thought.

Romanticism=s branch of Western epistemology is embodied in the child-centered, natural, divergent, expressionist theories; championed by Rousseau, Pestalozzi, and Cizek (Efland, 1990). In contrast, art educators who lean toward a more scientific approach as manifested in the discipline-based, formalist, convergent, reconstructionist theories embraced by Walter Smith, Dow, and Barken shift art education toward a less romantic practice (Efland, 1990).

Historically, art education has been associated with romanticism in its epistemology. The evidence for this can be found in the work of Viktor Lowenfeld whose child-centered approach to art education is distinctively romantic in classroom practice. However, Lowenfeld=s art education theories and philosophies are based on the science of developmental psychology (Michael & Morris, 1984). For some art educational approaches, the science base is obscured by its romantic activities. Efland (1990) articulates the gestalt of Western epistemology within the context of art and science.

> The arts make a virtue of affective engagement and participatory learning, celebrating the life of feeling and imagination. Science, by contrast, makes a virtue of objective detachment and precision, celebrating rational thinking . . . Each family of studies requires its own form of cognition and is essential to fill out the picture of reality. (p. 263)

Two provisions in the pedagogical standard focus on developing curricula in art based on the four disciplines or interdisciplinary content. These provisions rely on discipline-based models and the structures of art content. Maitland-Gholson (1988) claims that making art education more discipline-centered is Ato legitimize its claim to a place in the general school curriculum (which posits art as conceptual content that can be hierarchically structured . . .)@ (p. 51). The discipline-based approaches to art education require intervention by a teacher and structures content to be convergent to national, state and local educational standards. Structured in this way art education becomes integrated into general education because the discipline-based approach is readily applicable to convergent assessment and other contemporary educational methods. The provisions concerning interdisciplinary or discipline-based curriculum and its effect on education is reviewed earlier in the multiple philosophical approaches to art education provision and later on in this review regarding the assessment provision.

Jeffers= (1993) study of elementary art method courses found that current programs have a wide range of topics. Listed, as essential methods for pre-service students are courses in: studio art process, pedagogical issues, and developmental stage theory. AStudies in these areas seem to form a conceptual foundation . . . which is capable

of supporting a broad range of course topics and activities@ (p. 240). According to Zimmerman (1994a) the pre-service student should be exposed to, and choose from, a wide variety of subject matter and teaching strategies that can reach different learning styles.

While variety in content and pedagogical approaches are the goals in method courses, Galbraith (1995) found that Amany art education pre-service method course instructors regard themselves as teachers of subject matter (ART), rather than as art teacher educators@ (p. 23). Galbraith believes method courses tend to emphasize content over pedagogy. Added to the concern of content over pedagogy, Jeffers (1993) found no comprehensive description of art method courses in the literature. The lack of course descriptions make it necessary for each art methods instructor to reinvent at their discretion an art methods course. The content variation in methods courses may be extensive.

After acquiring relevant knowledge of content and pedagogy, methods, materials and resources it is now necessary to practice and apply this knowledge by creating lesson plans and teaching those plans under supervised conditions. Student teaching is the culminating activity in pre-service programs that brings together theoretical learning into practical application (Arnold, 1976; Galbraith, 1993; Henry, 1999; Kowalchuk, 1999).

Research into how subject matter content is put into practice in art pre-service programs is a neglected area of study that is explored less systematically in art education than in general pre-service education (Davis, 1990; Zimmerman, 1994b). Little documentation exists on how the visual arts translate into school subject matter and

pedagogy, nor how subject matter is actually changed by individual teachers (Galbraith, 1993).

The student teaching practicum suggests that the students experience a multiplicity of classroom settings, different schools and districts, teaching children from unequal economic levels, diverse cultures and student populations with varying abilities. Over the years there have been some in art education who have called for increased student teaching experience to increase effectiveness (Beymer, 1970; Blankmier, 1949; Lovano-Kerr, 1985). Yet, it has been established that beliefs about teaching methods come from the experiences teachers had as students (Henry, 1999). AThese beliefs about teaching are often deeply rooted and remain intact despite what we try to teach in education classes@ (Henry, 1999, p. 16). Roth & Pipho (1990) reported, Ano consistent relationship between the number of field-oriented courses taken and teacher effectiveness has been found@ (p. 120).

There are two provisions that focus on the importance of self-evaluation in art education and ask pre-service students to reflect on past and present academic and clinical experiences for the sake of future development. Reflection has become integral to pre-service programs. It is another tool to help teacher candidates become more effective. Susi (1995) explains that reflective content includes the review of thought processes and behavior patterns as a way to reconsider and better understand field experience. He also contends that the purpose of reflective practice is not about discovery or new knowledge, but knowing something already known in a deeper way.

Reflective content usually takes the form of journal writing within the field experience. AThis type of introspection is crucial in developing a long-term professional growth model . . . and that it should be initiated early in undergraduate teacher education programs@ (Roland, 1995, p. 123). Reflective journal writing can help students clarify ideas about teaching and aid in the formulation of their own philosophy of teaching (Henry, 1999).

Sabol (1998) found that Aassessment in visual arts education has been made problematic by the variety of learning that occurs in visual arts programs@ (p. 10). There are different ways to evaluate student achievement, teaching performances, and art programs depending upon educational objectives.

Day (1985) recommends the rationale for evaluation and assessment be based on the relationship between objectives and outcomes. Methods of assessment are linked to the teacher=s choice of curriculum and instruction as framed by disciplined-based versus child-centered theories. The theoretical differences regarding these approaches discussed earlier are directly related to different outcomes. Therefore, assessment standards are based on a personal philosophical position regarding child or discipline-based theories and beliefs concerning the essentialist or instrumental rationales.

Lowenfeld (1952) stated, Ain art education the working process is of greater importance than the final product@ (p. 26). Hence, ALowenfeld discusses evaluation in terms of growth. The seven components of growth . . . are emotional, intellectual, physical, perceptual, social, aesthetic, and creative, and all are fostered through creative art experiences@ (Day, 1985, p. 233). Assessment requires the teacher to evaluate each

child differently using those seven categories with no specific criteria. Teachers intervene as facilitators (Jeffers, 1990) and learning outcomes are divergent. Assessment for the child-centered approach is individualistic.

Assessment methods related to the discipline-based approach are based on professional knowledge and activities in the various art disciplines. Professionals are the source for curricula and require different assessment methods for the disciplines concerning the scope and sequence of content and skills to be learned. The discipline-based approach links classroom instruction to specific learning objectives making assessment convergent to the educational objective.

Because there are many different methods of assessment, Hamblen (1987) thought the emphasis on testing may be counter productive and negate the value of art study. The irony of assessment in art education that Hamblen points to is centered on art=s role in general education versus art=s nature. Art=s nature is divergent expression; art=s educational role is convergent to an objective. For pedagogical purposes this paradox needs to be resolved in the minds of art pre-service students.

Thus, it becomes important for the art teacher candidates to find their own personal rationale that makes educational sense to them. Each art teacher must work out the incompatibility of art=s subjective nature within the conformity of general education.

In the absence of empirical data that would support one educational rationale and assessment model over another, it is necessary for the pre-service art student to choose from the variety of information presented to them in preparation programs. The choice is

based essentially on the pre-service students= beliefs in the function of art and art=s role in education.

Duke (1999) cites two general rationales facing art pre-service programs: art education for its own value versus art as a subject used in support of other core subjects in the curriculum. Eisner (1998) addresses art rationales in terms of outcomes. According to Eisner there are three outcomes of an art education. The first outcome is the same as Duke=s rationale that stressed the value of art and art=s disciplines. The second outcome comes from increased aesthetic awareness, which is primarily art-related, but a case could be made for utilizing increased awareness for other subjects. The third outcome utilizes art knowledge and skills and transfers them to other non-art subjects. This final rationale relegates art to the periphery of education and is reminiscent of the Platonic view of art.

A sound art-based rationale will aid pre-service teachers to direct and focus many aspects of their professional growth. The pre-service program should provide teacher candidates with information to help guide students toward a relevant rationale that fits their individual personality and level of understanding and is in harmony with current educational values.

Classroom environments are receiving attention due, perhaps, to discoveries in brain-based research. According to Caine & Caine (1990) learning always involves conscious and unconscious processes. The brain perceives the whole environment of the school and responds to all peripheral information. Therefore, learning is enhanced by

clean safe facilities that challenge students. Conversely, learning will be disrupted by poor conditions, overcrowding and threatening surroundings.

Sylwester (1994) suggests that brain-based classrooms Ainclude many sensory, cultural, and problem layers that are closely related to the real-world environment@ (p. 50). Brain-based environmental applications to art classrooms will make an intriguing place to learn about art. The classroom could represent a colorful world with images from many cultural backgrounds, charts, timelines, illustrations, music, student work, and other on-going projects and activities used to immerse the senses in interactive experience. As Slywester points out, classrooms based on brain research emphasize personal solutions to environmental changes. Brain-based applications to art classrooms will invite an open exchange of ideas and multiple interpretations to visual problems and aesthetic responses.

Summary

The content of the standards for teacher preparation in art vary in philosophical function and therefore outcomes. For many provisions in the 1999 NAEA standards there are varied approaches. Within each provision there is a broad range of content to be learned and performed.

Art education is an expansive subject area encompassing a range of human experiences. Although art education has a long history, much of that history has emphasized art production. In the past, the research and literature regarding art teacher preparation focused on studio and appreciation courses with less concern for pedagogy. Seemingly, within approximately the last decade, the literature reflects a broader interest

in art pre-service research through the investigation of subject specific pedagogical methods. The increased awareness for pedagogical instruction within art education may be due in part to the inclusion of art in the core of the public school curriculum through *Goals 2000: Educate America Act.*

The 1999 NAEA standards incorporate both the traditional content knowledge disciplines of art teacher training with the pedagogical concerns of a performance-based teacher preparation program. This more diverse approach to art pre-service programs is essential for maintaining art education=s core curriculum status within general education by graduating teachers of art, rather than artists who teach. With this in mind, this study investigates art teacher preparation programs in Texas.

CHAPTER 3

METHODOLOGY

Purpose

Art pre-service education is transitioning from credit hour standards to performance-based outcome standards in an attempt to graduate prepared art teachers. There are no data at present that describes the extent to which Texas pre-service art programs are complying with the voluntary 1999 NAEA *Standards for Art Teacher Preparation*. Without current data relating to the art and pedagogical content of art pre-service programs in Texas, it was not possible to evaluate the extent to which programs are offering a comprehensive preparation for future teachers. This, in turn, has implications for the consistency of art instruction in elementary and secondary schools. If art education pre-service programs vary in content and pedagogical instruction, then graduates from these programs may vary in their knowledge and ability to teach art.

Since the designation of core curriculum status by *Goals 2000: Educate America Act*, art education has been given a chance to demonstrate its tremendous epistemological value. Inconsistency among art pre-service programs in content and pedagogical instruction must be addressed as a prerequisite for arts education=s continued core status designation.

Aware of differences in art teacher preparation, the NAEA produced voluntary national standards in 1970, 1979, and the current 1999 edition which states unequivocally that Athe quality of art teacher preparation programs varies widely with some colleges

and universities continuously improving and updating their programs while others graduate students without strong professional preparation@ (p. 1).

It would be advantageous for art educators in pre-service programs to adapt the 1999 NAEA *Standards for Art Teacher Preparation* statewide as a starting point for intrastate art education consistency. Currently, Texas State Standards are being implemented to reflect the 1999 NAEA standards. These state standards are intended to be in effect by 2002 or 2003 (personal communication Jacqueline Chanda, 4-12-01). In the interim, general acceptance of the NAEA standards by all stakeholders may provide the teacher candidate in the state an increasingly equal and relevant art preparatory education at many institutions of higher education.

The purpose of this research serves as a starting point to describe Texas pre-service teacher education programs in art in terms of the national standards. For those standards that were designated by respondents to be comprehensively taught, the study explores how this was accomplished. The purpose of this aspect of the research was to find a consensus, if one existed, in meaning for the term comprehensively taught. Or in the absence of a general understanding, developed a range in meaning.

Statement of the Problem

A problem with teacher preparation lies in its variability (NAEA, 1999; Hammond & Cobb, 1996). In art education, teacher preparation is an increasing concern now that the arts have been designated as a core subject area within general education. Areas of variability within art pre-service programs are: art content knowledge and pedagogical approaches; changing voluntary national standards and the extent to which

these standards are being accepted; and, state and local control of education in the United States. Hammond & Cobb (1996) state, Abecause no universal standards for either licensing or accreditation are enforced, the range in teacher preparation programs is wide@ (p. 38).

The issues set forth in this descriptive study were focused on the variations inherent in art teacher preparation when national standards in content knowledge and pedagogy are voluntary and state programs are not equal in size regarding student population, the number of full-time art and art education faculty and the number of undergraduate art education students who graduated each year. These factors produced a range in program content and different interpretations regarding what it means to teach art content and pedagogical approaches in a comprehensive manner. This study gauged the range of program instruction and explored what art educators perceived as comprehensive instruction.

The problem of this study was to compare pre-service teacher education programs in art in Texas to the national performance-based standards as outlined in the 1999 NAEA *Standards for Art Teacher Preparation*. This study compared the implementation and the extent of implementation of the national standards in Texas art programs and compared Texas programs to each other. For those standards or provisions that respondents perceived as being taught comprehensively, the study explored how this was accomplished.

This study in practical terms helped in identifying the similarities and differences among state art teacher preparation programs, using the NAEA *Standards for Art*

Teacher Preparation as a template and provided insight into how programs perceived that they were teaching specific provisions comprehensively.

Comparisons provided information on the extent to which NAEA national standards are influencing art content and pedagogical instruction within colleges and universities in Texas. Implicit in these comparisons rests program equity and to some extent quality among art programs in the state. The concept of quality used here pertains to each program=s adherence to the *Standards for Art Teacher Preparation* formed from five professional education organizations: NAEA, NASAD, NCATE, NBPTS, and INTASC.

Although the educational organizations mentioned above helped in creating the 1999 national program standards in art teacher preparation, they came to no agreement on the amount of time required for mastering each provision nor did they illustrate a range of possible adequate performances for licensing art education teachers. Gore (2001) noted that reformers of teacher education agree that reform is needed but they disagree on the structure and substance of that reform.

Research Questions

What provisions of Standards 1 and 2 of the 1999 NAEA *Standards for Art Teacher Preparation* received the most attention in the pre-service art teacher education programs in Texas? Which provisions received the least attention?

- If a provision was taught, to what extent was it taught?

- What provisions of Standard 1 and 2 of the 1999 NAEA *Standards for Art Teacher Preparation* are taught in pre-service art teacher education programs in Texas?
- Was there a significant difference in the provisions taught and the extent to which they were taught or the attention provisions received in the pre-service teacher education programs in Texas by: (1) the size of the institution where the program existed? (2) the number of full-time art faculty? (3) the number of full-time art education faculty? and (4) the number of undergraduate art education students who graduated last year?
- If a provision was perceived to be taught comprehensively, how was this accomplished?

Sources of Data

The sources of data were responses to a questionnaire (See Appendix B) mailed to 53 colleges and universities in Texas, identified by the Texas State Board for Educator Certification (SBEC) on March 1, 2001, as degree granting institutions for the certification of art teachers. Programs in the state vary in size from very large (more than 50 art faculty) to zero art faculty members. These colleges and universities represented the entire population of art pre-service programs in Texas.

The survey was addressed to personnel who were familiar with each of their individual programs because the accuracy of this study depended on the respondents= knowledge of their institution=s program. Jaeger (1997) states Acomplex issues can be

examined through a mail survey only when the survey population is composed of specialists with a common background and a natural interest in the topic@ (p. 459).

The population of this study was made up of internal specialists who are assumed to have knowledge of program content and can differentiate between what is written in course descriptions and what is actually taught. AReliability is the fit between what occurs and what is recorded@ (McMillan, 1996, p. 251) and only someone from inside a program can know and reconcile what occurs with what is recorded. Extrapolating from McMillan and applying it to this research, catalog analysis of course descriptions focused on what was recorded and was detached from what actually occurs. Consequently it should be pointed out that reliability is likely to be diminished using catalog analysis. Therefore, analysis of catalogs by a researcher cannot have the same insight and knowledge about what goes on inside a program. To enhance reliability, McMillan (1996) posits, Ait is best to establish standard conditions of data collection@ (p. 126).

Commensurate with this approach to reliability is Fowler (1993) who suggests that asking the same set of questions of all participants is important to the concept of reliability. Analysis of catalogs by a researcher undermines the concept of reliability in the sense that not all participants are asked the same set of questions. As noted in Gall, Borg & Gall (1996) research questionnaires tend to apply looser validity and reliability standards because researchers typically collect information that is highly structured and likely to be valid. They [questionnaires] are interested in the average response of the total group rather than the response of a single individual. A lower level of item reliability is

acceptable when the data are to be analyzed and reported at the group level than at the level of individual respondents. (p. 291)

This research relied on content validity to the degree that the data collected by the questionnaire adequately represented the contents of the 1999 NAEA standards. This questionnaire embodied the universe of specific content found in the NAEA standards if not in the questionnaire itself, then also, in the accompanying unabridged copy of the standards that were sent with the questionnaires. Gall, Borg & Gall (1996) wrote Aa survey need not cover all the content in a given . . . study . . . to be content-valid, but it must cover a representative sample of the content domain@ (p. 250).

Content validity was most important to this study. The content of the 20 provisions that appear on the survey instrument were abridged to simplify and shorten the questionnaire. To help increase the content validity of the instrument the provisions were listed in alphabetical order as they appeared on the original standards and copies of the original standards were sent along with the questionnaires.

Prior to mailing questionnaires, contact was made with institutions identified by the State Board for Educator Certification that provided art teacher preparation programs. An e-mail message was sent to Deans and Department Chairs requesting the name of the person most familiar and knowledgeable with the institution=s art education program. From the e-mail inquiries a list of contact personnel was made that included: the name, office address, office e-mail address, and office telephone number of those respondents recognized by their institution as being most familiar with their program. For those not responding to e-mail inquiries an Internet analysis of non-respondent institutions=

websites was conducted to determine a person who was likely to know about the art pre-service program. Education, credentials, and experience in art or art education were the guidelines used for this analysis. If this information was not available on the website the chair of the department where certification in art education was found was regarded as the contact person.

Another source of data collection concerning the number five response, (comprehensively taught) addressed the range of interpretations and perceptions regarding the meaning of Acomprehensively taught@. The sources of data were catalog analysis and follow up questions via e-mail and telephone contact to the institutional representatives who indicated that a provision was taught comprehensively. Institutions that marked the number five or the Acomprehensively taught@ response to a provision was asked how they achieved that high level of implementation.

Methods of Data Collection

Art education is transitioning from credit hour standards to performance-based outcome standards. Art education is moving in a new direction, a direction not investigated before. Therefore, art pre-service education requires a new description. McMillan (1996) states that descriptive research is particularly valuable when an area is first investigated (p. 168). Surveys according to Rea & Parker (1992) typically collect three types of information: descriptive, behavior, and preference, Awhich are not mutually exclusive@ (p. 5). Gall, Gall & Borg (1999) suggested that, Asurvey research is a form of descriptive research that involves collecting information about research participants= attitudes, beliefs, interests, or behavior through questionnaires . . .@ (p. 173). This study

used the survey questionnaire for its descriptive, interest, and preference data collecting properties. Descriptive studies determined Awhat is@. Therefore, this study described Awhat is@ by determining the extent to which each Texas art education program implemented the provisions under Standards 1 and 2 of the NAEA *Standards for Art Teacher Preparation* and by comparing responses to provisions among Texas art programs. This study also attempted to determine Awhat is@ meant when educators designated a NAEA standard as comprehensively taught.

Other reasons for utilizing a survey instrument for this research were: it provided access to a widely dispersed population; respondents had time to give thoughtful answers, to look up records, or consult others; it could be replicated in other states or administered at a later date in order to assess differences attributed to location and time; rapid turnaround in data collection; and, relatively low cost (Creswell, 1994; Fowler, 1993; Rea & Parker, 1992). Some caveats to survey research as noted by Gall, Gall & Borg (1999) are based on the pitfalls of self-reporting: respondents can conceal information or they may not be aware enough to respond accurately. Therefore, Athe data obtained through survey research are likely to be distorted or incomplete to an unknown degree@ (p. 173).

The survey was mailed to the people identified from the initial e-mail inquiries. The survey was mailed in a 9 x 12 inch clasp envelope. Inside the envelope, along with the survey questionnaire (Appendix B), was a cover letter (Appendix C), an information and consent letter approved by the University of North Texas Committee for the Protection of Human Subjects (Appendix D), a copy of the unabridged NAEA *Standards*

for Art Teacher Preparation (Appendix A), and a pre-addressed, postage paid return envelope. The cover letter expressed appreciation for the respondent=s participation and assurances of confidentiality, informed the respondent that the survey was created through the abridgement of NAEA program standards, and provided instructions for filling out and returning the survey.

The methods for data collection regarding the Acomprehensively taught@ response on the questionnaire were catalog searches, e-mail and telephone communication with the survey respondents. AComprehensively taught@ is a perception that was calculated by credit hours or the opportunities students have in contact with the content of a specific provision. Commensurate with catalog searches for the designation of Acomprehensively taught,@ data was collected by e-mail, mail, and telephone contact to determine if a provision with few or zero credit hours was being taught comprehensively through the incorporation of its content into other courses.

Tools for Data Gathering

The tool for this study was a Likert-type survey questionnaire (See Appendix B) that was created using the 20 provisions that describe performance-based outcomes in Standards 1 and 2 of the NAEA *Standards for Art Teacher Preparation*. The contents of the questionnaire were 20 abridged provisions in the order that they appear in the 1999 NAEA program standards booklet. These 20 provisions were the dependent variables in the study.

Under each of the 20 provisions were six options that indicated the degree to which that provision was taught. The scale runs from zero through five. Zero indicating,

Anot taught@ to five indicating, Acomprehensively taught@. The questionnaire was designed to have an even number of responses for the provisions. The even number of responses did not allow for a central or neutral point. This design, Aforces the respondent to make at least a weak commitment in the direction of one or the other extreme . . . forced choice between a mildly positive or mildly negative appraisal as the least extreme response@ (DeVellis, 1991, p. 67).

The questionnaire had four independent variables: the size of the institution where the program exists; the number of full-time art faculty; the number of full-time art education faculty; and, the number of undergraduate art education students who graduated last year. Within each of these four independent variables there are discrete categories that formed a continuum from low to high. From this design, descriptive, multiple comparison and practical analyses were employed.

When an institution did not respond completely, had a confusing response to an item on the questionnaire, or indicated that they taught a provision comprehensively by circling the number five response, further data gathering took place by catalog searches, e-mail, mail, or telephone communication. For the purpose of replication, this instrument was standardized in procedure to ensure consistency in administration and scoring. Hence, e-mail contact was preferred since correspondences could be replicated exactly and consistently.

In response to provisions that were marked with the number five or comprehensively taught designation, follow up was pursued to understand the respondent=s interpretation of what it means to teach provisions in a comprehensive

manner. Catalog descriptions of programs were searched using the institution=s website or CollegeSource Online. Additional questions were sent by e-mail, mail or telephone contact to discern what their interpretation of Acomprehensively taught@ was by the extent to which the content of a provision was taught in their program. Also, for the top ranked 13 provisions in the study data were gathered in the same way for the number four response score as the number five response score.

Procedures for Data Collection

Weeks prior to sending out the survey questionnaire each institution in the state of Texas that grants degrees for the preparation of art teachers received an e-mail seeking the name, office address, office e-mail address, and telephone number of a person who is familiar with and knowledgeable about the institution=s art teacher preparation program. This information was used to create a contact list for the purpose of mailing the questionnaires and follow up.

The following procedure was employed in the collection of information: (a) the initial mailing of the survey to personnel familiar with the art pre-service program, (b) a postcard reminder after the second week, (c) a second mailing of the complete instrument after three weeks, and (d) a second mailing of a postcard as a reminder to complete and return the questionnaire after four weeks.

The accuracy of the study depended on the respondents' knowledge and familiarity of their program and how much attention they perceived was being devoted to each provision. Hence, catalog review by the researcher was a different approach to data collection and lacked the personal insight of the person most familiar with their program.

Ranking one's program was a matter of perception and perceptions could be distorted to an unknown degree. Therefore, in the interest of corroboration, catalog data was used to support or question the four and five response to provisions on the questionnaire.

For programs that marked "comprehensively taught" (the number five response) on the questionnaire or the number four response to provisions ranked in the top 13 most taught provisions as determined by this research, then additional investigation took place. Essentially two forms of investigation were used. The first was catalog analysis to determine how many credit hours, if any, were required that could be related to a specific provision. The second, e-mail, mail or telephone contact with the respondents, clarifying the required courses gleaned from the catalog analysis and asking for clarification, using essentially five questions: (1) Is (Are) these course or courses gleaned from your catalog correct? (2) If not, what course or courses are correct? (3) Through what approach does your program achieve a comprehensive level of instruction regarding the provision in question? (4) Is the provision in question taught comprehensively through specific courses or through the incorporation of its content into other courses? (5) If so, what course or courses?

Analysis of Data

A description of the art and pedagogical content of pre-service programs in art, based on the NAEA *Standards for Art Teacher Preparation* were shown from the frequencies of scores under each provision. The number circled under each provision expressed the extent to which the respondent perceived the provision was taught. Provisions with low numbers were characterized as receiving less instructional attention

in the program or as taking up less time and space in the program. Provisions with high numbers implied, that more instructional time or attention was given to that provision.

From this foundation further statistical analysis through percentages, measures of central tendency, multivariate methods such as one-way analysis of variance (ANOVA) or omnibus analysis, post hoc or multiple comparison tests, effect size or eta-squared, and "what if" analysis were used to describe state programs in terms of similarities and differences to each other and to the NAEA standards. ANOVA analysis was Aused to determine whether mean scores on one or more variables differ significantly from each other . . .@ (Gall, Borg & Gall, 1996, p. 180). Multiple comparison or pairwise analysis in this study used Tukey=s Honest Significant Difference (HSD) and Fisher=s Least Significant Difference (LSD). Hauck & Cormier (1996) explain that Athe term pairwise simply means that groups are being compared two at a time@ (p. 326) within the subcategories of the independent variable. HSD is considered a conservative analysis for determining significant difference while LSD is more liberal (Hauk & Cormier, 1996). Effect size is the association between the independent and dependent variables and is considered to be the practical analysis that explains the influence the independent variable has on the dependent variable (Hinkle, Wiersma, & Jurs, 1998). The Awhat if@ is used to determine the influence sample size has on statistical significance (Snyder & Lawson, 1993).

While there is no consensus on whether Likert data are truly continuous, many researchers treat it as such. AIt is usually assumed . . . that dichotomous or ordinal observed variables are indicators of continuous underlying factors@ (Kline, 1998, p. 237).

Ordinal data from Likert scaling are considered to be continuous in this study, which then supports multivariate analysis.

This research was a descriptive or expost facto (nonexperimental) model. In expost facto research, there is no manipulation of the independent variable because it has already occurred, but the comparison of group differences on the dependent variable is the same (McMillan, 2000, p. 192) as in experimental and correlational design. For this study there were four groups that defined the independent variables that may cause differences among programs. The independent variables were: the size of the institution where the program existed (student population); the number of full-time art faculty; the number of full-time art education faculty; and, the number of undergraduate art education students who graduated last year. These variables would be impossible to manipulate experimentally and therefore fall into the nonexperimental expost facto model. The four independent variables are each divided into discrete categories that form a continuum of data from low to high. The four independent variables yielded mean scores of each group on the dependent variables. The dependent variables are the 20 provisions that comprise the content of the NAEA standards.

The Acomprehensively taught@ response to provisions was investigated further to gauge the range of its perceptual interpretation. The concept of Acomprehensively taught@ related to the number of course credit hours the provision had within a program or the opportunities students had to be in contact with the content of a specific provision. The purpose of analyzing this information was to come to some understanding of the range of interpretations regarding what it means to teach art content and pedagogical approaches

in a comprehensive manner. Through this analysis the range of Acomprehensively taught@ interpretations about provisions was estimated by credit hours.

CHAPTER 4

RESULTS

The findings of the study are presented in this chapter in relation to the research questions. The study had two goals: (1) the description of Texas art pre-service programs through quantitative analyses and (2) a qualitative investigation into the meaning of the term "comprehensively taught". The description of the Texas art teacher preparation programs is presented first, followed by an exploration of the meaning of comprehensive preparation.

Quantitative

Descriptive Analysis

Of the 53 institutions listed by the Texas State Board for Educator Certification (SBEC), four universities were found to have discontinued, or do not offer, an art teacher preparation program. The remaining 49 programs comprised the population of art pre-service programs in the state. Of these 49 institutions, 23 (47%) responded to the questionnaire, which was the primary data-gathering instrument.

Demographic data were gathered regarding the institutions and the respondents. Data regarding the size of the institution, the size of the faculty involved in art pre-service and the number of students graduating from art programs during the most recent year gave a general description of art programs in the state. It was also of interest to know the positions held by the respondents who were sought for their knowledge and familiarity regarding their own art pre-service program.

The majority of art teacher preparation programs, 48% or 11 programs, were identified as being all-level programs. Twenty-two percent or 5 programs offered only secondary art teacher preparation and another 22% of programs (5 programs) offered both all-level and secondary art education. One institution (4%) offered only elementary preparation and the remaining program offered art teacher preparation as a minor area or second field.

The data revealed that 74% of the institutions are currently in the process of, or have in the recent past, revised their programs to accommodate the Texas Art Standards. The remaining 26% of the institutions indicated that they have not revised their programs to meet these new state standards.

The data showed that ten educators who responded for their institutions identified themselves as faculty members in art education. Five other participants identified themselves as administrators of an art program. Two programs had two respondents each: faculty members in art and administrators of education. One participant was identified as a faculty member in education. Two respondents identified themselves as being both faculty in art and art education, and finally, one participant was identified as both an art faculty member and an administrator of an art program. The primary research questions for this study were to determine what provisions of Standards 1 and 2 of the 1999 NAEA *Standards for Art Teacher Preparation* are taught or implemented in art pre-service programs in Texas and whether there are significant differences in the provisions taught and the extent to which they are taught by: (1) the size of the institution where the program exists; (2) the number of full-time art faculty; (3) the number of full-time art

education faculty; and, (4) the number of undergraduate art education students who graduated from the institution last year. These were the independent variables for the study.

Data from the questionnaires were organized into groups according to the four independent variables. The data from each questionnaire produced 20 scores, one for each program provision included in the *Standards for Art Teacher Preparation*. (See Appendices E, F, G, H.) The scores are arranged in order virtually as they appear in the NAEA Standards document and on the questionnaire. The top of the vertical column begins with Standard 1 provision A (S1-A) and progresses down, in sequential order, to Standard 2 provision L (S2-L). Responses to the questionnaire are grouped by categories for each independent variable. A total count for each program is calculated at the bottom of each vertical column and the mean score of each group is indicated.

The vertical scores denote one program's response to the questionnaire, providing scores that indicate the extent to which all 20 NAEA provisions are taught in a particular program, while the horizontal columns denote the extent to which the same provision is scored from one program to the next across the field of 23 participants in the research study.

Provision Ranking

By adding horizontal columns and ranking their sums one can derive which provisions from Standards 1 and 2 receive the most and least attention in art pre-service programs in Texas and/or the extent to which the provisions are taught among the participating art pre-service programs. For example, if every one of the 23 respondents in

the study scored a "comprehensively taught" or number five response to a provision, the numerical value for that provision would be 23 x 5 or 115.

This analysis found that Standard 1, provision A (S1-A) "breadth of studio instruction" received the highest ranking with a total of 98 or 85% of the highest possible score of 115. The ranked provisions with percentages based on the highest possible score of 115 are included in Table 1. Six of the top ten provisions scored as follows: (1) Standard Two, provisions E (S2-E) "student teaching" and (S2-H) "teaching methods, materials and resources;" both have scores of 92; (2) (S1-B) "depth in one studio area" tied with (S2-I) "creating classroom environments" with a score of 88; and (3) (S2-A) "multiple approaches to teaching art" and (S2-F) "theories of curriculum and instruction;" both have scores of 86.

Table 1: Rank of Provisions

Rank	Standard	Provision	Score	Percentage	Description
1.	One	A	98	85%	Studio breadth
2.	Two	G	96	83%	DBAE curriculum
3.	One	C	93	81%	Art history, cultural
4.	Two	E	92	80%	Student teaching
4a.	Two	H	92	80%	Teaching resources
6.	One	H	91	79%	Art appreciation
7.	Two	B	90	78%	Art ed. rationale
8.	Two	J	89	77%	Interdisciplinary
9.	One	B	88	77%	Studio depth

9a.	Two	I	88	77%	Classroom environs
11.	Two	C	87	76%	Child-centered
12.	Two	A	86	75%	Teaching approaches
12a.	Two	F	86	75%	Curriculum theories
14.	One	D	85	74%	Art history, social
15.	Two	K	84	73%	Assessment methods
16.	One	G	83	72%	Aesthetic theories
17.	One	F	81	70%	Art criticism
18.	Two	D	74	64%	Special needs children
19.	One	E	73	63%	Art history, diversity
20.	Two	L	67	58%	Self-evaluation

In response to the research question regarding which provisions are taught, 19 programs indicated that they taught all of the provisions to some degree. While four programs responded that they did not teach all of the provisions listed by the NAEA. Of those four, one program did not teach Standard 1 provision F (S1-F) concerning knowledge of art criticism methods. Another program did not teach Standard 2 provision L (S2-L) regarding journal writing to reflect on self-evaluation. Two programs did not teach nine of the12 pedagogical provisions, and of these two programs one program did not teach (S1-E) addressing art history instruction containing diversity issues. (See Appendix I) The nine pedagogical provisions that were not taught were found in two programs that do not have art education faculty. The missing pedagogical provisions that

both of theses programs shared were: (S2-A) multiple approaches for teaching art; (S2-B) a personal rationale for art in general education; (S2-C) child-centered instruction; (S2-D) needs of special population; (S2-F) theories of curriculum and instruction; (S2-I) develop interdisciplinary curriculum; and (S2-K) assessment methods.

The Extent to Which Provision are Taught

To find if differences existed among programs regarding the extent to which provisions are taught, data are organized under four independent variables: (1) the size of the institution where the program exists; (2) the number of full-time art faculty; (3) the number of full-time art education faculty; and (4) the number of undergraduate art education students who graduated last year.

In response to the research question concerning the extent to which provisions are taught, the descriptive statistical analysis began by calculating the three measures of central tendency: mean 3.75; median 4.10; and mode 4.30. These measures indicate a negatively skewed distribution of response scores from the questionnaire. These values are considered to be representative of all response scores and are usually located at or near the center of the distribution. With a negatively skewed distribution the mean is drawn toward the few low response scores. The median is the middle value and the mode the highest value. A negatively skewed distribution indicates that the response scores from the questionnaire tend to be scored higher than what would be found in a normal distribution of scores (Thomas & Young, 1995). The mean is the average score for all of the provisions in the study and at 3.75 the mean for this study suggests the NAEA provisions are taught extensively.

For the independent variable regarding the size of the institution where the programs exist, data are organized into four groups reflecting four mean scores in student populations. Less than 5,000 students made up 57% of the 23 respondents (N = 13) with a mean score of 3.36 on the dependent variable; institutions with student populations between 5,000 and 10,000 students and between 10,000 and 20,000 students each comprised 13% of respondents (N = 3) with a mean score of 4.00 and 4.08, respectively, on the dependent variable; and, institutions with more than 20,000 students accounted for 17% of the respondents (N = 4) with a calculated mean score of 4.59 on the dependent variable. (See Appendix E)

A one-way analysis of variance (ANOVA) for the independent variable (size of institutions) showed a p-value of .110, which was not significant at the 95% confidence level. This suggests that there is no significant difference in the extent to which the NAEA provisions are taught in art teacher preparation programs in Texas based on the size of the institution where the program exists. The ANOVA analysis is summarized in Table 2.

Table 2: One-Way ANOVA: Size of Institutions

Source	SOS	Df	MS	F	P
Between	5.340	3	1.780	2.297	.110
Within	14.726	19	.775		
Total	20.066	22			

*Significant difference at .05 level

The independent variable addressing the number of full-time art faculty in pre-service programs is grouped into four categories that produced four mean scores: programs with 1 through 4 art faculty made up 44% of respondents (N = 10) with a mean of 3.47 on the dependent variable; programs with 5 through 8 art faculty accounted for 30% of respondents (N = 7) and had a mean of 3.66; programs with 13 through 16, and 17 and above art faculty, each made up 13% of the respondents (N = 3) with mean scores of 3.77 and 4.86, respectively. (See Appendix F)

A one-way analysis of variance (ANOVA) for the independent variable, the number of full-time art faculty, showed a p-value of .172, which was not significant at a 95% confidence level. This suggests that there is no significant difference in the extent to which provisions are taught in art teacher preparation programs in Texas based on the number of full-time art faculty. The ANOVA data are summarized in Table 3.

Table 3: One-Way ANOVA: Number of Full-Time Art Faculty

Source	SOS	Df	MS	F	P
Between	4.544	3	1.515	1.854	.172
Within	15.522	19	.817		
Total	20.066	22			

*Significant difference at .05 level

Under the independent variable concerning the number of programs with full-time art education faculty, data are organized into three groups that produced three mean scores: programs having no art education faculty made up 22% of the respondents (N =

5) with a mean score of 3.18 on the dependent variable; programs with 1 to 3 full-time art education faculty made up 69% of respondents (N = 16) with a mean score of 3.77; and, programs with 4 to 6 art education faculty made up 9% of respondents (N = 2) with a mean score of 4.98 on the dependent variable. (See Appendix G) The study found no programs with more than 4 to 6 art education faculty.

ANOVA analysis for the independent variable regarding the number of full-time art education faculty, showed a p-value of .072, which is not significant at the .05 confidence level. This suggests no significant difference in the extent to which provisions are taught in art teacher preparation programs in Texas based on the number of full-time art education faculty. The ANOVA data are summarized in Table 4.

Table 4: One-Way ANOVA: Number of Full-Time Art Education Faculty

Source	SOS	Df	MS	F	P
Between	4.634	2	2.317	3.003	.072
Within	15.432	20	.772		
Total	20.066	22			

*Significant difference at .05 level

The independent variable addressing the number of art education undergraduate students who graduated last year is organized into five groups that produced five mean scores: programs with no art education graduates comprised 4% of the respondents (N = 1) with a mean of 4.50 on the dependent variable; programs with 1 to 4 graduates represent 61% of respondents (N = 14) with a mean score of 3.47; programs with 5 to 8

graduates comprised 18% of the respondents (N = 4) and had a mean score of 3.94; programs with 9 to 12 graduates accounted for 13% of respondents (N = 3) with a mean score of 4.21; and, programs with 13 and more graduates made up 4% of respondents (N = 1) with a mean of 5.00 on the dependent variable. (See Appendix H)

A one-way analysis of variance (ANOVA) for the independent variable, the number of undergraduate art education students who graduated last year, showed a p-value of .344, which was not significant at the .05 confidence level. This suggests that there is no significant difference in the extent to which the NAEA provisions are taught in art teacher preparation programs in Texas based on the number of undergraduate art education students who graduated last year. The ANOVA data are summarized in Table 5.

Table 5: One-Way ANOVA: Art Education Graduates

Source	SOS	Df	MS	F	P
Between	4.230	4	1.058	1.202	.344
Within	15.835	18	.880		
Total	20.066	22			

*Significant difference at .05 level

The ANOVA analyses showed that the pre-existing conditions or independent variables for this study made no significant difference in the extent to which the NAEA provisions are taught in art pre-service programs in Texas. While there was variation within each of the four independent variables it was not significant. A positive

comparison could be made between the increasing group sizes within the independent variables and the increasing mean scores on the dependent variable. The only exception was found in the independent variable addressing the number of undergraduate art education students who graduated last year. This was the only anomaly in the data that was not consistent with an increase in size reflecting increased mean scores. Otherwise, increased group size reflected increased mean scores throughout the study.

"What if" and Effect Size Analyses

To heighten the effect of increasing group size with increased mean scores and to extrapolate on the statistical ANOVA analysis from the initial 23 participants, a "what if" analysis was employed. Statistically 47% (23 responses out of 49 in the population) was not considered a large sample size. Sample size has a strong effect on whether results will be statistically significant. Hays (in Thompson & Kieffer, 2000) emphasized that "virtually any study can be made to show significant results if one uses enough subjects" (p. 4). Therefore, the "what if" analysis was used to evaluate the magnitude of sample size needed to achieve statistical significance for each independent variable in the study.

> Examining the size of a sample within the context of a fixed magnitude of effect allows the researcher to answer "what if" questions about statistical significance . . . Researchers can ask, for a fixed magnitude of effect, at what larger sample size would my statistically nonsignificant test statistic become significant? (Snyder & Lawson, 1993, p. 336)

To find the answer to that question each independent variable in the study had its sample size adjusted to find significance. The "what if" analysis for the independent

variable, size of the institution, became statistically significant when N went from 23 to 29 participants, an increase of 6 programs (N = 29). For the independent variable, the number of full-time art faculty, the analysis indicated that the results would have been statistically significant if 11 more programs had participated, which would have increased sample size to (N = 34). The independent variable, the number of full-time art education faculty, became statistically significant when N went from 23 to 26 participates, an increase of only 3 programs (N = 26). For the last independent variable, the number of undergraduate art education students who graduated last year, the "what if" analysis indicated that the results would have been statistically significant if 14 more programs (N = 37) had participated in the study.

Snyder and Lawson (1993) suggest researchers make a distinction between statistical significance and practical significance. Practical significance tells us something very different from p-values. ANOVA analysis is statistical. "What if" analysis is practical and is also known as magnitude of effect or effect size. Effect size is measured in percentages called eta squared. Effect size statistics are used to illustrate how much of the dependent variable can be controlled, predicted, or explained by the independent variables (Snyder & Lawson, 2000). The ANOVA effect size, or eta squared analysis, characterizes sample results and does not vary over changes in sample size. Therefore, regardless of adjustments in sample size to find statistical significance, the practical significance of the effect size remains the same. The results of the "what if" and effect size analyses are presented in Tables 6, 7, 8, and 9.

Table 6: (Size of Institution) “What if” N = 29

Source	SOS	Df	MS	F	P	Eta-squ
Between	5.340	3	1.780	3.022	.048*	.266
Within	14.726	25	.589			
Total	20.066	28				

*Significant at the .05 level

Table 7: (Art Faculty) “What if” N = 34

Source	SOS	Df	MS	F	P	Eta-squ
Between	4.544	3	1.515	2.927	.050*	.226
Within	15.522	30	.517			
Total	20.066	33				

*significant at the .05 level

Table 8: (Art Education Faculty) “What if” N = 26

Source	SOS	Df	MS	F	P	Eta-squ
Between	4.634	2	2.317	3.453	.049*	.231
Within	15.432	23	.671			
Total	20.066	25				

*Significant at the .05 level

Table 9: (Art Education Graduates) “What if” N = 37

Source	SOS	Df	MS	F	P	Eta-squ
Between	4.230	3	1.410	2.938	.048	.211
Within	15.835	33	.480			
Total	20.066	36				

*Significant at the .05 level

The “what if” analyses showed significant difference on all independent variables when sample size was increased. Even though the p-values changed with sample size the effect size remained the same.

The effect of the institution’s size on the extent to which the NAEA provisions are taught is 26.6%. The effect of the number of full-time art faculty and art education faculty on the extent to which the provisions are taught is 22.6% and 23.1%, respectively. The effect size of the number of undergraduate art education students who graduated last year on the extent to which the NAEA provisions are taught is 21.1%. Cohn (1988) stated that the effect size of .2 or .3 is small. He said that, “when phenomena are studied which cannot be brought into the laboratory, the influence of uncontrollable extraneous variables (noise) makes the size of the effect small relative to these [variables] . . .(p. 25). In this ex post facto design the independent variables consisted of pre-existing conditions beyond the scope of manipulation, which as Cohn states, would produce a small effect.

The statistical and practical analyses for this research shows inconclusive results regarding the research question relating the independent variables to the extent to which provisions were taught. To clarify research results, the independent variables were ranked

by their ANOVA p-values, adjusted sample size, and their strength to explain the dependent variable or effect size. Table 10 summarizes data and ranks in order of perceived strength the independent variables' ability to control or explain the effect on the dependent variable.

Table 10: Rank of Independent Variables

Indep. Variable Rank	ANOVA p	N	"What if" N+	N=	Sig.	Effect Size Eta square
1. Art Ed. Faculty	.072	23	3	26	.049	23.1%
2. Institutions Size	.110	23	6	29	.048	26.6%
3. Art Faculty	.172	23	11	34	.050	22.6%
4. Graduates	.344	23	14	37	.048	21.1%

Provisions Taught and Not Taught

The research question regarding implementation is described in a taught, not taught, status for each of the provisions. In this regard, the provisions were studied to find if they were either taught or not taught. Here the researcher was only interested in the zero (not taught) and any numbered response (taught) to provisions on the questionnaire. The extent to which the provisions were taught (scores on the questionnaire from 1 through 5) was not a concern for this research question. The only interest was that the provision was taught, not its degree or extent. (See Appendix I.)

Of the four independent variables only the number of full-time art education faculty showed a significant difference regarding provisions taught. The other three

independent variables showed little variation and no significant difference regarding the implementation of the 20 NAEA provisions.

The sample size of 23 programs, multiplied by the 20 provisions that made up the dependent variable of the study, produced 460 possible taught, not taught responses. Of the 460 possible provisions to be taught, less than 5% (N = 21) of the provisions were not taught; 439 provisions were taught. Of the 21 provisions not taught, 19 came from two programs. (See Appendix I.) These two programs do not have full-time art educators.

A one-way ANOVA analysis investigating implementation with regard to the number of full-time art education faculty, showed a p-value of .020, which was significant at the .05 confidence level. Additional multiple comparison analyses using Tukey HSD and Fisher LSD showed significant difference (p = .017) and (p = .006) respectively, between programs with zero art education faculty and those with 1 to 3 full-time art education faculty. This suggests there is a significant difference in the number of NAEA provisions taught when one to three art educators are present in the program. However, more than 1 to 3 full-time art educators showed no additional increase in the number of provisions taught. The ANOVA data are summarized in Table 11.

Table 11: Art Education Faculty - Provisions Taught, Not Taught

Source	SOS	Df	MS	F	P
Between	.133	2	6.660E-02	4.819	.020*
Within	.276	20	1.382E-02		
Total	.410	22			

*Significant difference at .05 level

Summary of Quantitative Results

The study found that most of the NAEA provisions for Standards 1 and 2 were taught to some degree in all Texas programs. The provision that is taught most in Texas art teacher preparation programs is Standard 1 provision A (S1-A): studio instruction in a variety of media. The provision that is least taught in Texas art pre-service is Standard 2 provision L (S2-L): journal writing to reflect on academic experiences and self-evaluation.

The extent to which provisions were taught was ranked on a Likert scale with six options. Producing an aggregate mean (3.75) for all provisions taught in Texas art pre-service programs. Using ANOVA analysis, the study found no significant difference in the extent or degree to which provisions are taught in art pre-service programs in Texas regarding the pre-existing conditions of the independent variables.

The study employed "what if" and effect size analyses. The "what if" analysis adjusts the sample size for each of the independent variables to find significance and the effect size explained the practical association between independent and dependent variables. The purpose of the "what if" analysis is not to identify the exact results that would occur with a different sample size but to provide insight regarding the effect of sample size on statistically significant, or nonsignificant results - results that may not be entirely evident from p-values alone (Snyder & Lawson, 1993). The "what if" analysis for this study illuminated three results: different increases in sample size for each independent variable to find significance, which implied strength of explanation and, participation that was not reached. The "what if" analyses showed that the sample size (N

= 23) was not large enough and had to be increased on all independent variables to find significance: size of institutions, needed 6 more participants to become significant and had an effect size of .266; numbers of full-time art faculty, needed 11 more participants to become significant and had an effect size of .226; numbers of full-time art education faculty, needed only 3 more responses to become significant and had an effect size of .231; and, the number of undergraduate art education students who graduated last year, needed 14 more participants to become significant with an effect size of .211. Cohn (1988) suggested a range for effect size. He stated that effect size in the range of .8 is high; .5 is medium; and, .2 is low. Accordingly, the effect size for the independent variables on the extent and degree the NAEA provisions were taught in Texas art pre-service programs is low.

Significant difference was found regarding the implementation of provisions, described in a taught, not taught, status for provisions. The study found significant difference between programs with zero full-time art education faculty and those with 1 to 3 full-time art education faculty. The finding suggest that the presence of an art education faculty member increases the number of pedagogical provisions taught in art pre-service programs. The other independent variables in the study showed little variability and no significant difference regarding the implementation of provisions that are taught or not taught. However, and it is important to note that more than one art educator in a program did not increase the extent or degree to which the provisions were taught.

Qualitative

Investigating Comprehensive Preparation

A qualitative goal of this study was to identify those provisions that were perceived to be taught comprehensively by the respondents and to determine how this was accomplished. Deciding what is the most important content to be taught to meet the comprehensively taught interpretation for each provision is largely a subjective matter. As noted, Cohen (1995) suggested that to be useful standards need to set parameters of adequacy. The NAEA provisions state what is to be provided in a program but does not delineate specifics within a provision. Consequently, for this study content that is found in course descriptions was used to connect the course to the provision. The course was then assumed to teach and fulfill the provision. This study did not make judgments on the comprehensiveness of course content that programs taught to meet the requirements for a provision. Rather this study matched course descriptions to provisions in an explicit way and concentrated on how much time is spent in content areas of each provision. Comprehensively taught for purposes of this study means the provision's content can be found in some form in the course descriptions. The term comprehensively taught then depended on the interpretation of the respondents.

Data to respond to this question was acquired through follow-up catalog analysis and communication with participants. Because programs are implemented through organized courses and reflect a time on task approach as reflected through semester credit hours, this process sought to compare course descriptions to the content areas of the NAEA provisions.

All four and five questionnaire responses from each program were researched to find course descriptions and the number of credit hours devoted to the provision in an art education program. The language of the course descriptions was matched to the NAEA provisions, but not all programs used language that would link a course to a provision and not all programs taught courses fulfilling every provision. Inquiry into the definition of the comprehensively taught designation required an interpretation of course descriptions to determine the actual content of a course because the language of course descriptions is broad. Course descriptions set content outlines and are not specific. Therefore, interpretations of course descriptions were judged as they were written in the catalogs to either relate, or not relate, to the NAEA provisions. Courses and credit hours perceived to match a provision's content were estimated and a follow up document was produced using these estimations.

Each of the 23 participating programs in the study received its own personalized follow up document that listed all comprehensively taught provisions cited by the respondents who filled out the initial questionnaire along with the estimated course numbers and credit hours that were gleaned from the respondent's catalog and thought to be the reason for the provision's comprehensive designation. For the top 13 provisions, identified by rank earlier in this study, the number four response score was also investigated using the same methods to determine the course numbers and credit hours for the number five response score. This was done to find if differences exist between the four and five responses.

The five most asked questions on the follow up document were: Are the course numbers identified correct in fulfilling the specific provision's content? Are the course credit hours correct for teaching this provision comprehensively? If this course or these courses are not correct, what course or courses are correct? Through what approach does your program achieve a comprehensive level of instruction regarding this provision? And, is this provision taught comprehensively through a specific course or through the incorporation of its content into several courses? The follow up documents were then sent by mail or e-mail to the respondents. An attempt was then made to contact all respondents by telephone.

Of the original 23 respondents to the questionnaire only nine participated in the follow up. Responses to the follow up documents clarified course and credit hour interpretations from the course catalogs made by the researcher, giving insight into how programs perceive to accomplish teaching a provision comprehensively.

A perceived comprehensive approach to teaching art for some respondents took a social perspective. This approach seemed to interlock content across the program. One approach to a comprehensive preparation in art education was the social contextualization of art content. This approach produced programs that incorporated the content of the provisions into different courses that could increase time on task for many students. However, in the context of this research the contextulization of art and the incorporation of content areas throughout a program's curriculum made judgments on the comprehensiveness of each provision problematic.

Perceptions about teaching a provision comprehensively were investigated by estimating the approximate range in credit hours found for the same provision among different programs. Credit hours are believed to be the clearest way to interpret what it means to teach a provision comprehensively assuming the time spent in the course is devoted to relevant content. Differences in course descriptions concerning the same provision do not offer insight into a comprehensively taught provision because the NAEA provisions state general outlines in content areas. The NAEA provisions do not identify specifically the most important knowledge, skills, and methods that should be taught in each provision. The content areas contained in the NAEA provisions are broad and information is not arranged hierarchically under the provisions. Therefore, course descriptions from different programs that apply to the same provision may vary in content but still apply to the provision. It is important to note that credit hours assigned to provisions are the estimation of the researcher based on catalog analysis and participant correspondence.

Comprehensive Perceptions for Standard One

The approximate range in course credit hours and the approximate average credit hours, where possible, for each Standard One provision in art content knowledge is presented in Table 12. The approximate course credit hours found to contain the language reflected in the NAEA provisions are indicated. When a zero occurs that means that no language was found in the respondent's catalog of course descriptions that matched the provision's content. The course credit hours used in the table were derived from

respondents' catalogs or through written or verbal correspondence. Table 12 contains the data for both the five and four responses for Standard One.

Table 12: Standard One (Columns regarding range and averages are in credit hours.)

Provisions	5 Response	Range	Average	4 Response	Range	Average
S1-A	11 of 23	21-48	30.90	7 of 23	12-54	32.14
S1-B	9 of 23	0-33	12.67	5 of 23	0-9	4.80
S1-C	10 of 23	6-21	10.67	7 of 23	0-12	6.86
S1-D	5 of 23	0-18	*			
S1-E	6 of 23	0-18	*			
S1-F	6 of 23	0-24	*			
S1-G	4 of 23	3-27	*			
S1-H	7 of 23	3-51	13-71	9 of 23	0-9	4.30

* Indicates content is incorporated into other courses.

Respondents to the questionnaire marked the comprehensively taught response for provision S1-A (provide studio instruction that covers a range of different media) eleven times out of 23 responses, with the estimated range in credit hours being 21 to 48. The average was 30.90 credit hours. Seven programs out of 23 marked the number four as their response for this provision, with the estimated range in credit hours being 12 to 54. The average was 32.14 credit hours. All programs listed a variety of studio courses that their students are required to take to become art teachers.

Respondents who indicated the comprehensively taught designation for provision S1-B (provide in depth studio instruction in one particular medium) did so nine times and scored the number four response five times out of 23 programs. For this provision the comprehensively taught interpretation among programs varied between an estimated 0 through 33 credit hours. The average credit hours calculated for this perceived comprehensively taught provision is 12.67 studio hours. The range for the four response score was 0 to 9 credit hours, with 4.80 credit hours as an average. Of the 9 programs that indicated they taught this provision comprehensively and the 5 that gave the provision a score of four, there were four programs where no course descriptions were found in their catalogs to match the content of this provision.

The comprehensively taught response for provision S1-C (provide art history instruction containing culture, periods, places, and styles) indicated that 10 out of 23 respondents to the questionnaire perceived their program offered comprehensive preparation related to this provision. The variation in credit hours for this provision is 6 through 18 credit hours and in one program from 15 to 21 credit hours, depending on electives. The average for this provision is 10.67 hours. The number four response indicated by seven programs for this provision ranged from 0 to 12 credit hours with an average of 6.86. One program represented zero credit hours because no course was found in the respondent's catalog that matched the language for this provision. The art history courses taught comprehensively are primarily based on Western culture, which can lead to courses in upper level non-Western and Women's art history electives.

For provision S1-D (provide art history instruction containing political, economic, and social issues) and provision S1-E (provide art history instruction containing gender and ethnicity issues) instruction was described as contextualized within other art history courses. Other approaches reported by respondents for comprehensive preparation regarding these provisions involved the incorporation of content into other survey, visual studies, and art production courses. Provision S1-D was designated as comprehensively taught by five programs out of 23. Variations in credit hours estimated from catalog analyses and correspondence were: 0, 12, 12, 15, and 18. Six programs out of 23 marked S1-E (art history containing gender and ethnicity issues) as being comprehensively taught. The credit hours perceived to teach this provision comprehensively were: 0, 0, 6, 12, 15, and 18. Again these hours are not devoted entirely to these art history provisions but are credit hours that incorporate this content within other courses. Therefore, the average number of credit hours for comprehensively taught content is difficult to calculate.

Six programs out of 23 indicated that S1-F (provide knowledge of art criticism in various analytical and interpretive methods) was comprehensively taught. The estimated credit hours, as gleaned from catalog analyses and through correspondence from each of the six programs, were: 0, 3, 3, 3, 15, and 24 hours. Three programs had one course each in art criticism whose course description was similar to the language found in the NAEA provision. One program listed its 15 credit hours in visual studies and studio classes as courses where art criticism content is incorporated. Another program reported that it teaches art criticism to a certain extent in all of its 12 credit hours of art history courses

and 12 hours of visual studies courses. An average for a comprehensive preparation is difficult to calculate regarding this provision due to the incorporation of content into other courses.

The comprehensively taught response for provision S1-G (provide opportunities into aesthetic theories and philosophies of art to study functions and purposes of art in various cultures) was designated four times out of 23 programs. The estimated credit hours for each of the responses were: 3, 6, 24, and 27. Two programs taught aesthetic content through specific courses. Programs citing 24 and 27 credit hours incorporated aesthetics into art history and visual studies courses. Again, an average for a comprehensive preparation is difficult to calculate because of the incorporation of content into other courses.

Seven of the 23 respondents indicated that S1-H (provide beginning knowledge of traditional and contemporary theories of art and their impact on the creation of contemporary art forms) was comprehensively taught. The estimated range in the comprehensively taught responses varied from 3 to 51 credit hours with an average of 13.71 hours. The range of courses used to meet this provision's content included courses in art education, visual studies, and methodology. While the content of this provision was found under many course descriptions, the participants also mentioned that the content of the provision is incorporated into studio and art history courses as well. Nine programs responded with a score of four with a range of 0 to 9 credit hours and an average of 4.30 hours.

Comprehensive Perceptions for Standard Two

Standard Two provisions address pedagogical content. The range in course credit hours for Standard Two provisions and, when possible, the average course credit hours are shown in Table 13 for both the four and five responses. A zero value indicates that no language was found in the catalog course descriptions to match the language of the provision. Each provision is matched to the number of five and four responses it received.

Table 13: Stgandard Two (Columns regarding range and average are in credit hours.)

Provisions	5 Response	Range	Average	4 Response	Range	Average
S2-A	7 of 23	3-21	10.71	8 of 23	0-12	6.75
S2-B	10 of 23	0-18	4.80	4 of 23	0-9	3.00
S2-C	7 of 23	3-15	8.57	9 of 23	3-15	7.00
S2-D	4 of 23	0-9	4.50	**		
S2-E	12 of 23	6-18	9.00	3 of 23	9-12	11.00
S2-F	9 of 23	6-24	12.56	5 of 23	0-16	8.00
S2-G	12 of 23	0-18	8.00	8 of 23	0-9	3.75
S2-H	11 of 23	0-20	9.73	6 of 23	3-12	6.00
S2-I	9 of 23	0-18	5.00	6 of 23	0-12	4.50
S2-J	10 of 23	0-18	7.20	5 of 23	0-12	4.80
S2-K	7 of 23	3-18	*			
S2-L	3 of 23	6-18	*			

* Indicates content is incorporated in other courses.
** Ranked out of the top thirteen provisions.

Provision S2-A (provide instruction that includes multiple theories and approaches to art instruction) was perceived comprehensively taught by seven of the 23 programs. The estimated range in perception for a comprehensive preparation for this provision was from 3 to 21 credit hours with an average of 10.71 hours. To achieve a comprehensive preparation in this provision, programs incorporated visual studies with education/methodology courses. Five programs indicated that they teach the content of this provision through visual studies courses and two programs indicated that they teach the content of this provision through the incorporation of visual studies courses and education courses. The four response was indicated by eight respondents for provision S2-A. The range of credit hours was 0 through 12 credit hours in these programs with an average of 6.75 hours. Seven of the eight programs taught the content of this provision through visual studies courses.

Provision S2-B (provide instruction that develops a personal rational for art in education) was marked comprehensively taught by 10 of the 23 programs. The estimated range in credit hours was 0 to 18 with an average of 4.80 hours. To achieve a perceived comprehensive preparation on the provision, six programs taught the content of this provision through visual studies courses. For four programs, no catalog course descriptions were found to match the language of the provision and no response to communications were received. The number four response was indicated four times for this provision, ranging from 0 to 9 credit hours with an average of 3.00 credit hours. Three programs indicated that they teach the content of this provision through visual studies courses.

Provision S2-C (provide child, adolescent, and young adult developmental stage instruction) was comprehensively taught by seven of the 23 programs. The estimated range in credit hours was from 3 to 15 credit hours with an average of 8.57 hours. Respondents indicated that they used a variety of courses to teach this provision comprehensively. Three programs taught the content of this provision using an educational psychology course, an education course and a secondary education course. Four programs taught the content of this provision through the incorporation of visual studies, education, and psychology courses. There were nine participants who marked a four response for provision S2-C with the range of credit hours being 3 to 15 with an average of 7.00 hours. Two programs used a visual studies course or an education course to teach this provision with seven programs incorporating the content of this provision into visual studies, education, secondary education and educational psychology courses.

Four respondents perceived that they comprehensively taught provision S2-D (provide instruction that includes knowledge of child development in special needs populations). The estimated range in credit hours as gleaned from catalog analysis and correspondence with respondents for these programs was 0 to 9 hours with an average of 4.5 hours. In all cases, the content of this provision was taught in education courses.

Provision S2-E (provide student teaching in a variety of classroom settings), was perceived to be comprehensively taught by 12 of the 23 programs. The estimated range in credit hours was 6 to 18 hours with an average of 9.00 credit hours. Ten programs taught this provision comprehensively through education courses. One program utilized visual studies courses and the remaining program used education courses and a visual studies

course to achieve the perceived comprehensive level. Three respondents indicated a four response for this provision. The estimated range of credit hours was 9 to 12 with the average being 11.00 credit hours. All three programs that indicted a four response taught the content of this provision through education courses.

Provision S2-F (students study theories of curriculum and instruction to reflect on and refine practice), was perceived to be taught comprehensively by 9 of the 23 programs. Three of these programs indicated that they achieved comprehensive preparation through visual studies courses. Three programs indicated that education courses were used to teach the provision, while the remaining three programs incorporated the content in both visual studies courses and education courses. The range of credit hours was from 6 to 24 with an average of 12.56 hours. Five respondents indicated a four response score for provision S2-F, with credit hours ranging from an estimated 0 to 16, with the average being 8.00 credit hours. Three programs indicating a four response achieved it through education courses and two through the incorporation of content into visual studies courses and, the remaining program, through an education course.

Provision S2-G (provide opportunities to develop curriculum inclusive of the four disciplines: production, criticism, history, and aesthetics reflecting national, state, and local standards) was reported comprehensively taught by 12 programs. The variation in perception of comprehensively taught is wide regarding this provision, ranging from 0 to 18 credit hours with an average of 8.00 credit hours. One respondent indicated that they were working toward giving students a comprehensive level of instruction in discipline-

based art education and another program wrote that disciplined-based art education is now history and questioned the formation of distinct disciplines. Six programs perceived a comprehensive level of instruction was achieved by teaching this content in visual studies courses and five programs perceived that a comprehensive level of instruction was achieved by incorporating this content into visual studies and education courses. For one program no catalog course description was found to match the language of the provision and no response to communications were received. Eight institutions responded with a score of four with the estimated range of credit hours from 0 to 9 and an average of 3.75 credit hours. Of these eight programs, six taught the content of this provision in visual studies courses. For the two remaining programs no course descriptions were found to reflect where the content of this provision was taught.

Provision S2-H (provide instruction that includes knowledge of methods, materials, and resources for various educational settings and for different levels of planning instruction), was perceived to be taught comprehensively by eleven respondents. The estimated range in credit hours was 0 to 20 credit hours with an average of 9.73 credit hours. Four programs perceived that a comprehensive level of instruction was achieved by teaching the content of this provision through visual studies courses. Five programs incorporated the content into visual studies courses and education courses. One program taught the content of this provision in an education course. For one program no catalog course description was found to match the language of the provision and no response to communications were received, making it impossible to determine where the content was taught. The number four score was reported six times for

provision S2-H, with the credit hours ranging from 3 to 12 with an average of 6.00 credit hours. Four programs indicated that they teach the content of this provision using visual studies courses. One program indicated that the content of this provision was taught through education courses and another program indicated that the content of the provision was taught in both a visual studies course and education courses.

Provision S2-I (provide instruction into developing the importance of creating art classroom environments) was reported comprehensively taught by nine programs. The estimated credit hour range was from 0 to 18 credit hours with an average of 5.00 credit hours. Two programs achieved a comprehensive level of instruction for this provision through visual studies courses. Three programs achieved a comprehensive level of instruction for the content of this provision through education courses and one program achieved a comprehensive level of instruction through both visual studies courses and education courses. For three programs no catalog course descriptions were found to match the language of the provision and no response to communications were received. The number four response was indicated six times for provision S2-I, with the range in credit hours between 0 and 12 with an average of 4.50 credit hours. Two programs marking a four response indicated that they taught the content of this provision through education courses. One program indicated that they taught the content of this provision through visual studies courses and one program incorporates the content into both an education course and visual studies courses. For two programs no catalog course descriptions were found to match the language of the provision and no response to communications were received.

Provision S2-J (provides students with the skills to develop interdisciplinary art curriculum) was scored comprehensively taught by 10 of the 23 respondents. The estimated credit hour range was from 0 to 18 with an average of 7.20 credit hours. Five programs perceived that they achieved a comprehensive level of instruction teaching the content of this provision through visual studies courses. Two programs perceived that they achieved a comprehensive level of instruction for this provision by teaching it through both visual studies and education courses. For three programs no catalog course descriptions were found to match the language of the provision and no response to communications were received. The number four response was reported five times for provision S2-J, with credit hours that ranged between 0 and 12 with an average of 4.80 credit hours. Two programs reporting a score of four indicated that the content of this provision was taught through visual studies courses and one program indicated that the content was taught in visual studies courses and an education course. For two programs no catalog course descriptions were found to match the language of the provision and no response to communications were received.

Provision S2-K (provide knowledge of assessment methods to evaluate student work, their own teaching and their own program) was reported comprehensively taught by seven programs. The range of credit hours as gleaned from catalog analyses and correspondence was 3 to 12 hours and with regard to this provision, one program offered 3 to 18 credit hours in electives. Five programs perceived that they achieved a comprehensive level of instruction teaching the content of this provision through education courses. One program perceived achievement of a comprehensive level of

instruction teaching the content of this provision through visual studies courses and another program used both visual studies courses and an education course to achieve a perceived comprehensive level of instruction. These credit hours are not devoted entirely to assessment content but are credit hours that incorporate assessment content within other courses. Therefore, the average number of credit hours for a comprehensively taught provision regarding this content was difficult to calculate.

Provision S2- L (emphasize journal writing to reflect on academic and clinical experiences for effective teaching and professional growth) was indicated comprehensively taught by three respondents. The estimated range in credit hours as gleaned from catalog analyses and correspondence was 6 to 18 credit hours. Two programs perceived a comprehensive level of instruction teaching the content of this provision through education courses and one program perceived a comprehensive level of instruction teaching the content of this provision through visual studies courses. The average number of credit hours for a comprehensively taught provision regarding this content was difficult to calculate because of the incorporation of content into other courses.

Qualitative Summary

Nineteen programs out of 23 applied the same courses repeatedly to a multitude of provisions to obtain a comprehensively taught designation for provisions within their programs. Large programs from big institutions applied one course to many provisions or content areas to achieve a comprehensive status and were disposed to teach the majority of courses within their art and art education departments. Large programs used visual

studies courses time and again to cover content in both Standards 1 and 2. Many programs from small institutions did not repeat courses as consistently as large programs to cover the range of content areas. Small programs were disposed to using many other academic departments to provide a preparation for art teachers.

As discussed in the literature review, the content of each performance-based standard in the 20 NAEA provisions is broad. Each provision has within its content a multitude of philosophies, knowledge, methods, and skills to be taught and learned by the art teacher. The problem with these and other performance-based standards are, as Cohen (1995) pointed out, ambiguous, because you have to know what is sophisticated and what is unsophisticated and what makes the difference? The 1999 NAEA standards are a collection of umbrella concepts for standards that encompass 20 content universes. Each provision is voluminous in content. Therefore, pre-service standards should focus on specific content within each provision that is essential in preparing future art teachers. Important content within each of the 20 provisions remains unstructured making curriculum relative. Identifying which programs offer its students sophisticated content is subjective. This is the crux of the problem regarding performance-based standards in art education. Content pertaining to each provision is not presented or arranged in a hierarchical manner. Art educators as a community of scholars must identify the sophisticated and meaningful philosophies, knowledge, methods, and skills required for art teacher preparation. Standards as broad as the 1999 NAEA Standards are helpful only as a general guideline. Specific content guidelines for each provision would define the concept of sophistication for a comprehensive preparation.

As noted by Jeffers (1993) there is still too much individual preference by art educators in art teacher preparation. The NAEA standards do not narrow the scope of content for each provision. In fact, the analysis of course descriptions found no two courses for the same provision to have the same wording.

Provisions in this study were designated comprehensively taught by "time on task". Provisions that received the most average credit hours assume a comprehensive status 55% of the time. For 35% of the provisions, the content was incorporated into other content areas or fell outside of the top ranked 13 provisions and were not subjected to further analysis.

The remaining two provisions, or 10%, gave more average credit hours to the number four response scores than to the number five response scores. This investigation shows that in general there is a "time on task" marker for a perceived comprehensive preparation and that the comprehensively taught perception among educators was still a fluid concept regarding both time on task and content.

CHAPTER 5

CONCLUSION AND RECOMMENDATIONS

This study had two main goals: (1) to describe through quantitative analysis art teacher preparation programs in Texas, using the 20 provisions on art content and pedagogy of the 1999 NAEA *Standards for Art Teacher Preparation* as a benchmark, and (2) to investigate through qualitative methods the meaning of the term "comprehensively taught" as it was applied to the 20 provisions.

For those provisions that were designated "comprehensively taught" by respondents to the questionnaire, the study explored how this was accomplished by qualitatively examining what was meant when a provision was designated as being "comprehensively taught". The purpose of this inquiry was to find a consensus, if one exists, for the term "comprehensively taught" or in the absence of a general understanding, develop a range in meaning.

Synopsis of the Quantitative Study

Fifty-three institutions were identified as the population for the study. Only 49 institutions were actually found to offer art pre-service programs and of those programs, 23 responded.

Of the 23 institutions responding to this study, the majority of the institutions (57%) have less than 5,000 students. Most programs in the study (43%) have between 1 to 4 full-time art faculty and 70% have between 1 to 3 full-time art education faculty members. Sixty-one percent of the institutions surveyed graduated between 1 to 4

undergraduate art education students last year. Most of the programs in the study (48%) provide all-level preparation and 43% of the respondents were art educators.

The 20 provisions of the 1999 NAEA program standards were the dependent variable for this study. The data gathered were analyzed using one-way ANOVA analysis, "what if", effect size, and multiple comparison Tukey HSD and Fisher LSD analyses.

The research design was ex post facto which related to the pre-existing conditions found in Texas institutions. The pre-existing conditions or independent variables (the size of the institution where the program exists; the number of full-time art faculty; the number of full-time art education faculty; and, the number of undergraduate art education students who graduated last year) did not lead to significant results for the study.

Nineteen out of 23 art teacher preparation programs in Texas have implemented all of the 20 provisions of the NAEA standards. The top ranked provision in terms of the extent of implementation in Texas art pre-service programs was (S1-A) "studio instruction that covers a range of different media". The provision ranked the least taught in Texas programs was (S2-L) "journal writing to reflect on academic experiences and self-evaluation".

The study makes a distinction between the extent to which the provisions were implemented and implementation itself. The extent of implementation is concerned with the degree to which a provision is taught both quantitatively and qualitatively. Implementation addresses the provisions in a taught, not taught dichotomy.

The extent to which these programs implemented the NAEA standards did not seem to depend on the independent variables. This research contradicts the concern of Marantz (in Rogers & Brogdon, 1990) who questioned whether or not small art departments could be held to the same standards as large university programs. This study found that small institutions do as well as large universities in preparing art teachers. No significant difference exists among institutions in the state regarding the extent or degree to which the NAEA standards were taught.

With regard to the extent to which provisions were taught the research noted a pattern between increasing mean scores on the dependent variable to increasing group sizes within the independent variables. Therefore, a "what if" analysis was applied and showed that the sample size needed to be increased on each of the independent variables to become significant. Effect size statistics were used to determine how much of the dependent variable could be explained, controlled, or predicted by the independent variables (Snyder & Lawson, 1993).

With regard to implementation, only one significant difference in the independent variables was found regarding the number of provisions taught or not taught to the number of full-time art education faculty. The omnibus analysis showed that there was a significant difference between programs with zero full-time art education faculty and those with 1 to 3 full-time art education faculty. This is a significant finding for art educators and for art pre-service programs that do not have an art educator as a faculty member. The finding suggests that art educators expand the scope of pedagogical provisions taught within art pre-service programs. No significant difference was found in

any of the other three independent variables in the study. Therefore, art educators increase the number of provisions taught but they do not increase the extent of preparation. Expanding art education faculty to more than one in a program may apply more to the demands of student population than to increasing the extent to which provisions are taught.

Quantitative Conclusions

The statistical and practical analyses for this research showed inconclusive results regarding the research questions relating the independent variables to the extent to which provisions were taught. While the number of full-time art education faculty could be an important factor in the extent to which provisions were taught in art teacher preparation programs, the inconclusiveness between variables suggested that the number of full-time art educators showed more statistical strength, while student population had a stronger practical explanation or effect size on the dependent variable. Hence, the independent variable, size of the institution, could also be an important factor in the extent to which provisions were taught, however, its larger effect size did not produce the smallest ANOVA p-value or adjusted sample size.

The independent variable regarding the number of art faculty indicated a weak statistical association. Surprisingly, this variable needed a much larger sample size to become significant. Although its effect size was almost the same as the effect size recorded by the top ranked independent variable, it had a much smaller ANOVA p-value and adjusted sample size. This would suggest that the number of art faculty in a program

plays a less prominent role than what is suggested in the literature. Perhaps studio courses and, therefore, art faculty do not dominate art pre-service programs as believed.

According to course averages gleaned from catalog analyses art pre-service programs in Texas spent approximately twice as much time in visual studies courses and education courses (80 hours) than in studio (45 hours). A perception of studio's dominance within pre-service programs may be due to the similarities in learning activities associated with art production regardless of the media. The perception or misperception could be that the same art content knowledge is taught through different media of expression. Studio education could be perceived as one block of homogeneous content within the program that is larger than other content areas.

The number of undergraduate art education students who graduated per year had the lowest impact on the extent to which provisions were taught. This suggests that the number of students in a program who graduate have little to do with the extent of preparedness a program provides.

Inconsistencies were found in the statistical and practical analyses between p-values and effect size. This may be due to the small sample size. A larger sample size would likely change the explained and unexplained variance of effect size. Therefore, an inference that larger associations will exist with a larger sample size is precarious. The purpose of the "what if" analysis was not to identify an exact result with a different sample size but to give insight into a result that may not be evident from p-values alone (Snyder & Lawson, 1993).

None of the independent variables in this study seemed to explain, predict, or control with strength the extent to which provisions are taught in art pre-service programs. This contradicts the popular belief that bigger is better. A perception exists that large programs teach standards more extensively because large institutions have more art and art education faculty and more resources to facilitate programs. The more faculty in a program, the more likely the students will be exposed to multiple experiences and perspectives on content. For example, students matriculated into a program with only one art education faculty member receive knowledge from only one person's experience and perspective. However, students who matriculate into programs with two or more art education faculty members receive multiple experiences and views on the same content giving them better preparation. While this is a reasonable assumption, this research suggests that it does not matter how many art education faculty members are involved in the preparation of art teachers so long as it is more than zero. There was no significant difference among programs with more than one art education faculty member when it came to the extent to which the content of each provision was taught. Since content is not structured hierarchically by educators they may assume that what is taught in their program is important. This implies an arbitrary curriculum for each provision where time on task is more important than content. For example, a program employs one art instructor to teach 30 studio credit hours in a variety of studio disciplines while another program uses 10 instructors who each teach 3 credit hours in their area of studio specialization. Both programs provide 30 hours of instruction in studio and both programs fulfill requirements for art teacher preparation. While this is an exaggerated

example it does describe the situation. Hutchens (1997) states that, “there is no agreement on an ideal configuration for art teacher preparation (p. 140). The structure and content of programs are sometimes strikingly different, yet equalized by the laissez-faire approach toward content. The lack of specific content has equalized programs. Important content in art pre-service programs is not identified, making all content taught equal in fulfilling standards. Day (1997) noted, “program emphases and curricula vary from school to school, as do requirements . . .” (p.14)

Common sense would dictate that when researching standards governing programs that prepare art teachers, that art educators themselves would play a strong and significant role. In this study the association between art educators and program standards taught or not taught was significant. But the association between art educators and the extent to which provisions were taught was not significant. This may be due, as discussed in the qualitative portion of this study, to the lack of structure concerning the knowledge, methods and skills important to each provision. Without a basic outline of essential knowledge, methods and skills for each provision, questions of extent, depth, and degree of specific content areas remain relative. Any instruction within the broad outline of each provision is perceived as pertinent and is applied to time spent learning, even though the content taught may be ancillary to the salient knowledge, methods, and skills for the provision. For example, aesthetics according to Hamblen (1988) can be approached using four methods in the curriculum: historical philosophical; aesthetic perception and experience; aesthetic inquiry; and aesthetics for critical, social consciousness. The historical philosophical approach is concerned with aesthetic

dialogue and schools of aesthetic thought. The question then becomes, what dialogue and school of aesthetic thought is most appropriate for teachers to teach art teachers? Would Plato's approach on aesthetics be appropriate? Aristotle? Arnheim? Gombrich? Danto? Dewey? All of these aesthetic philosophies and philosophers are important, yet all cannot be taught to the same degree within the time constraints of programs. Which of these philosophies is the most beneficial for art teacher preparation? What is the essential knowledge from the other three remaining aesthetic approaches cited by Hamblen. The question of content is paramount to standards and must be discerned.

Statistically, large institutions that employ more art and art education faculty did not prepare students better than small institutions. Both large and small programs teach to some extent the disciplined-based or comprehensive approach, which is a cornerstone of the NAEA standards. Of the five programs that did not have art education faculty only two programs neglected the standards for pedagogy. Many small programs, those with and without art education faculty, taught the pedagogical provisions through visual studies courses or general education courses, while large universities taught art pedagogy through their art education courses.

Factors that profoundly influenced the accuracy of this study were: biased responses on the questionnaire and a low response rate from the population. The measures of central tendency for this study (mean 3.75; median 4.10; and mode 4.30) described a negatively skewed distribution of scores. This indicates that responses on the questionnaire were being distorted toward the high end of the scale (Thomas & Young, 1995). Gall, Gall, & Borg (1999) point out that the data collected through questionnaires

are distorted or incomplete to an unknown degree. Respondents can embellish, conceal, and may not be aware enough to respond accurately.

Apathy toward research was another problem for the study. Zimmerman (1997) identifies research conducted in 1991 that sent out 350 questionnaires to institutions in the United States that grant degrees in art education. Of the 350 questionnaires sent out only 170 were completed or a 48.6% response rate.

This study showed a similar rate of return. Of the 49 questionnaires sent out only 23 were completed for a 47% response rate and only 9 (39%) participated in the follow up activities. This was regarded as problematic and may have influenced the omnibus and qualitative analyses. If art education is going to continue to be a viable field of study, stakeholders must be willing to take the time to participate in research. Without reliable empirical data on standard reform, art pre-service programs may have to rely on the theoretical rather than the observable.

Quantitative Recommendations

When all programs are examined individually without concern for pre-existing conditions, such as size, some small programs scored well on the dependent variable. Size was not an indicator for the degree of application of contemporary NAEA provisions in this study. But other factors to be considered may influence teacher preparation such as the standards for art education faculty and standards and skills for art teacher candidates (NAEA, 1999). Research into both of these areas would compliment this study and contribute to increasing the understanding of art pre-service programs in Texas.

Further investigation of art teacher preparation programs is needed to articulate how programs of different sizes assimilate voluntary national standards and to what extent these standards are being taught. In the near future, mandatory state standards will change the current voluntary standard approach in art teacher preparation in Texas. Will state standards make any difference in the breadth and depth of content areas being taught by teaching toward a licensing exam? The quantitative portion of this study may be helpful in future research concerning the effect the institutions' size and the number of full-time art and art education faculty have on the comprehensive preparation of teachers. The importance of this research may lay in the future relationship this study will have with similar descriptive analyses of Texas art pre-service programs. Further study is needed to investigate how mandatory standards will affect outcomes in art pre-service programs in large and small institutions in Texas.

In a general sense, within Texas art pre-service programs, there is awareness that art education is more focused on preparing art teachers than artists. The top five ranked provisions indicate that programs are teaching, or are beginning to teach, visual studies or interdisciplinary content. With Texas Art Standards being implemented in the future, one can deduce that perhaps any question of a preparation gap existing between large and small programs will be assuaged. But this is not a given outcome of standards. Future research must be included in any national or state standard system to explore if programs are indeed providing consistent content and quality to all art teacher candidates.

Synopsis of the Qualitative Study

In an effort to better understand what it means to teach content comprehensively, multiple perspectives and interpretations of individuals regarding the meaning of comprehensively taught content were sought. Of particular interest were the mechanisms through which provisions were perceived as being comprehensively taught.

To this end, the following were considered and analyzed: the course content, what departments taught the courses, and the numbers of credit hours devoted to the provision's content. Since the NAEA provisions do not identify hierarchically the most important knowledge, skills, and methods to be taught in each provision, it was necessary to rely mainly on average credit hours as the mechanism for a perceived comprehensive description. This raises questions concerning the dissemination of important knowledge, skills, and methods that should be taught in art teacher preparation programs but may not be due to a lack of specific content identified for each provision, leaving content decisions to each instructor.

In response to provisions that were marked with a five or the "comprehensively taught" choice on the questionnaire, follow up was pursued through catalog analyses and correspondence with the respondents. Course descriptions from catalog analyses produced credit hour estimations and gave depictions of courses utilized in art teacher preparation. Course descriptions were linked to program provisions through the explicit association of words or phrases. Correspondence through e-mail, mail, and telephone contact clarified catalog analyses and gave insight into how comprehensive preparation was achieved. For the top ranked 13 provisions, the number four response score was also

explored to find if there was a substantive difference in credit hours between the four and five responses.

Qualitative Conclusions

Throughout the state of Texas, art pre-service programs teach the general provisions of the NAEA. Whether these programs teach the same content for each provision is questionable. Day (1997) stated that, "virtually every college or university art teacher preparation program differs from others in significant ways. Nevertheless, all programs deal with many of the same factors . . ." (p. 14). Content common among programs in Texas for each provision is stated in broad areas of general description such as student teaching, assessment, aesthetics, child development, criticism and the other content areas. Content areas are mentioned in both NAEA program standards and course descriptions but lack specifics into what constitutes important information within each description. These broad outlines of content make faculty members independent arbiters of art education content. Art educators teach their own interpretation of art education's content and construct their own curriculum (Jeffers, 1993). Some art educators emphasize art production, others teach toward discipline-based art education goals, others believe discipline-based art education is passé and integrate the disciplines in a social contextual approach. Some programs teach pedagogy through visual studies courses while others achieve this through education departments. Yet the majority of programs indicate that content in each provision is met. Many programs responded that the more time devoted to the content, the more comprehensive the preparation. This perception was based on the participant's own understanding of the content of each

provision and the time it takes to learn it. In the final analysis, art pre-service content is as distinctive as the institutions and educators involved in its dissemination.

The term "comprehensively taught" is impossible to articulate without the use of average credit hour estimations. The content within each provision is not hierarchical in its arrangement or taught systematically in order of importance. On the other hand, course catalog descriptions are not specific enough to state actual content. Catalog descriptions outlined course content broadly. The researcher analyzed catalog and provision content for explicit connections. Many connections were made between a course and a provision through the linking of one word or phrase common to both. In some cases, course catalog descriptions found no common point of reference to the wording of the NAEA provisions. Therefore, for many provisions the "comprehensively taught" status is the perception of the respondent.

The researcher's investigation was estimated in average course credit hours by connecting course content to the content of the provision. If available, the researcher sought insight into programs via communication with the respondents. In examining the 20 provisions, the results showed that eleven provisions had a greater number of average credit hours designated for the five response than the four response and two provisions had a greater number of average credit hours designated for the four response than the five response. Six provisions had content that was incorporated or contextualized into other courses, which made comparing the four and five responses impossible. One provision was not ranked in the top 13 provisions and therefore was not investigated in terms of comparing the four and five responses.

This study suggests that there is an amount of time that is considered comprehensive. The evidence stems from the majority of the 23 programs that differentiated between the average number of hours needed for a number five response and a number four response on the questionnaire. The number five response received more average credit hours 55% of the time. This implies a "time on task" marker that respondents perceived as comprehensive preparation.

The five response did not receive the most average credit hours all of the time. Two programs showed results that gave greater time to the four response than to the five response. For example, one program replied that the provision concerned with studio instruction (S1-A) that covers a range of different media, requires of its students 21 credit hours of studio instruction. This program designated on the questionnaire that it teaches this provision comprehensively (a five response). Another program responded that it devoted 54 hours to this same provision, but marked only a four response. The program marking the four response applied 33 more credit hours of instruction toward this provision and thought its program did not teach the provision comprehensively. The average four response for the entire study regarding the studio provision is 32.14 hours, which is greater than the average five response of 30.90 credit hours. As this example shows, the term "comprehensively taught" depends on the interpretation of the individual. However, the majority of the provisions did show that programs in this study that devoted more time to teaching a provision actually did perceive and interpret a connection between time on task and a comprehensive level of instruction.

Provisions pertaining to art history containing political, economic, social, gender, and ethnicity issues were contextualized or incorporated into Western art history, electives, and visual studies courses. Provisions that addressed art criticism, aesthetics, rationales, theories and self-reflection were incorporated to an unknown degree in other courses.

Studio courses in art pre-service programs were perceived differently than other courses by the respondents. There seems to be a reluctance to apply studio knowledge to other content areas within the pre-service curriculum. The study suggests that studio courses are self-contained educational structures whose content and skills are not transferable to other courses or content areas within programs. Several respondents did cite a studio course as a source for interdisciplinary content but generally this resource was overlooked.

Studio courses are easily definable and make a conceptual gestalt regarding the studio experience. Students who matriculate into a ceramics course know it is ceramics that they will study. Matriculation into a painting course defines the content to be learned under the painting discipline. In this study, a studio course generally counted for three credit hours toward the studio provision standard. Taking ten studio courses in a variety of studio disciplines would mean the attainment of the 30 hour average for this provision and in some programs probably would have achieved a "comprehensively taught" designation. These studio hours contain within them other content areas, but respondents neglected to cite studio content for other content areas, as was the practice for non-studio courses. Studio course content could have been incorporated into teaching aesthetics

(Hamblen, 1988), criticism (Risatti, 1989), and visual studies courses (Galbraith, 1995), but were not typically incorporated into the content of other provisions.

Visual studies courses on the other hand, were used repeatedly to fulfill the content areas of many provisions. One program used three courses 13 times to achieve a comprehensive level of instruction in all 13 provisions where the courses were applied. Another program used two courses 12 times to accomplish a comprehensive preparation for those 12 provisions where the courses were applied. Nineteen programs out of 23 repeatedly used visual studies courses or education courses to cover a multitude of NAEA provisions. This suggests that the content of these courses was spread over a broad area of program content making assertions of comprehensive preparation problematic. Indeed, using one course to satisfy content for all, or segments of 13 provisions, and in another program using one course for one provision, illustrates the diversity of the definition applied to "comprehensively taught" among art educators.

But within this diversity, there seemed to be a majority who understood the time required for comprehensive preparation. Each provision had a different maximum average credit hour for achieving a comprehensive designation. The "time on task" perception is flexible and contingent upon content. For example, the provision with the largest comprehensive average was (S1-A) breadth of studio instruction, with an average of 30.90 credit hours. The provision with the least comprehensive average was (S2-D) child development and needs of special populations, with an average of 4.5 credit hours. Both provisions were described as "comprehensively taught" even though there was a large disparity in the amount of average credit hours between them.

From the 20 NAEA provisions one wonders what salient knowledge, methods and skills need to be identified for a common and equal system of preparation. Once discovered, will these standards remain the same over time? Or will they change like all standards do? The quest for art education standards is ongoing. It is a race to find a suitable and timely preparation to fit the educational values of today. Research such as this will be needed in the future to describe the reality of art pre-service practice in relation to the theoretical educational standards of a changing society.

Qualitative Recommendations

The 1999 NAEA standards are only the first step in art pre-service reform. The next step should be the identification of content areas for each provision. To find the meaning of "comprehensively taught" in educational terms is perhaps impossible without determining specific content areas for each provision and then knowing the required degree of performance that is recognized as comprehensive. To find if Texas programs are truly teaching the NAEA provisions comprehensively would take an army of researchers fanning out across the state to record actual course content by examining course syllabi, attending classes, and talking with faculty. It would require many case studies and mega analysis to get a clear picture of art pre-service content in the state. The resources involved in such a study would make it impractical.

To solve this problem, art educators may find the remedy by arranging the content of each course to fit the contents of the NAEA provisions or the content of any state standard system. Arranging content in art pre-service programs would be a major research undertaking in and of itself. But this would be a better, more logical approach to

determine if programs are preparing teachers comprehensively and consistently. Could content areas be arranged hierarchically under each provision? How is a common curriculum created? Is consensus possible? Do art educators want standards that are loose guidelines or specific directives? The answers to these questions are paramount in deciding which direction art pre-service education will take in Texas.

Another way to assess the comprehensiveness of art teacher candidates' education is through a licensing exam. Unfortunately, licensing exams take place at the end of pre-service programs, which makes remedial work punitive. Somewhere between the NAEA general provisions and the do or die performance-based licensing exam should lay standards that define content that is essential for quality teacher preparation. This approach could take the guesswork out of the content to be taught in pre-service programs.

The methods employed in this research could be helpful in assessing content comprehensiveness in a timely way. But this type of research requires profound participation from the stakeholders in the state.

In the future, curriculum based on a hierarchy of content may focus art educators toward a common definition for the term "comprehensively taught". The goal for future research would be to see if average credit hours for each provision stays relatively the same or if the impending new state art standards have an effect on the future perceptions of what constitutes comprehensive preparation: what content constitutes comprehensive preparation and at what performance level is it deemed sophisticated?

A consensus on how comprehensive preparation is accomplished is vital for the future of art pre-service programs in Texas. It serves as an important area for future research regarding content and the limits of comprehensive and non-comprehensive instruction in terms of credit hours. Questions for future research include: what are the maximum average credit hours given a provision to perceive a four response and what is the minimum amount of credit hours to perceive a five response? It seems there is a loose collective sense of understanding between time on task and a perceived comprehensive preparation. Whether there is an unconscious marker of time that defines the border of a comprehensive preparation is a compelling avenue requiring deeper investigation.

APPENDIX A

1999 NAEA STANDARDS FOR ART TEACHER PREPARATION

Standard One

Art Teacher Preparation Programs Focus on Content of the Visual Arts.

Provision A: Teacher education programs in the visual arts provide numerous opportunities to study and engage in the process of art making involving traditional and contemporary studio approaches such as: drawing, painting, sculpture, ceramics, printmaking, fiber arts, photography, video, computer generated imagery, performance, environmental design and graphics. Basic concepts and skills related to processes, organizational structure, technical aspects, expressive content, technological knowledge are developed through these comprehensive studio experiences.

Provision B: Teacher education programs in the visual arts provide opportunities for concentrated work in at least one studio area. Art teacher candidates need to demonstrate competency in a variety of art forms, but at least one area of studio specialization will provide a level of competence that will serve to enrich their teaching.

Provision C: Teacher education programs in the visual arts provide experiences, which train students to engage in inquiry in the history of art, acquire knowledge of the context in which works of art have been created, and foster respect for all forms of art. Students are introduced to artists and artifacts from a variety of cultures, periods, places and styles.

Provision D: Teacher education programs in the visual arts provide a knowledge of the cultural context surrounding major artistic styles and historical periods of the development of art from a global perspective. This knowledge includes those political,

economic and social issues surrounding the emergence of traditional and contemporary art forms.

Provision E: Teacher education programs in the visual arts provide a knowledge of traditional and contemporary artists representative of diversity in regard to gender and ethnicity.

Provision F: Teacher education programs in the visual arts provide experience in various methods and models of art criticism to provide a knowledge of a variety of analytical and interpretive methods as components of the critical process. Students are encouraged to make reasonable interpretations and evaluations of works of art from a variety of perspectives and to share these views in both written and oral formats.

Provision G: Teacher education programs in the visual arts provide opportunities for the students to be introduced to aesthetic theories and philosophies of art and to study the function and purpose of art from various cultures and different contents. Students investigate a wide range of works of art which elicit varying aesthetic responses. They examine and reflect on their own emotional response to works of art.

Provision H: Teacher education programs in the visual arts provide beginning knowledge of major traditional and contemporary theories of art such as mimesis, formalism, expressivism, instrumentalism, and institutionalism among others and of the impact of these philosophies of art on the creation of contemporary art forms.

Standard Two

Art Teacher Preparation Programs Provide Teacher Candidates with a Thorough Knowledge of the Theory and Practice of Art Education.

Provision A: Teacher education programs in the visual art include study in the historical developments and prevailing theories of art education. Students understand that there are multiple approaches to teaching art and can discuss these approaches in terms of historical precedent and personal philosophical positions.

Provision B: Teacher education programs in the visual arts provide teacher candidates with an understanding of the philosophical and social foundation underlying the inclusion of art in general education and the ability to express a rationale for a personal philosophical position concerning the relevance and importance of art education.

Provision C: Teacher education programs in the visual arts include study in the physical, emotional, artistic and cognitive development of children, adolescents and young adults that provides a foundation for developing instruction relative to specific interest, abilities and needs.

Provision D: Teacher education programs in the visual arts provide students with a thorough understanding of child development as it relates to visual perception, artistic production and aesthetic response. Art teacher candidates should also have knowledge of the specific characteristics and needs of special populations (such as gifted, hearing or sight-impaired, behavior-disordered, mentally or physically challenged, and English Language Learners [ELL]) and of teaching strategies appropriate to those populations.

Provision E: Teacher education programs in the visual arts provide opportunities for art teacher candidates to have supervised experiences in a variety of classroom settings in addition to the traditional student teaching experience. These settings should include elementary, middle, and high school classrooms in schools and districts that include various cultural and economic levels. Settings in which students can observe art teachers effectively working with early childhood, special needs, and ELL populations should be included.

Provision F: Teacher education programs in the visual arts engage prospective teachers in the study of theories of curriculum and instruction which make it possible for students to reflect on and refine their practice of art education.

Provision G: Teacher education program in the visual arts provide opportunities for students to develop curriculum inclusive of art making, art history, art criticism, and aesthetics in a variety of instructional formats, reflective of national, state, and local curricular standards and frameworks.

Provision H: Teacher education programs in the visual arts provide art teacher candidates with knowledge of the current teaching methods, materials and resources appropriate for various educational settings and levels of art education. Additionally, opportunities to gain practice in implementing this knowledge in the context of planning instruction are included.

Provision I: Teacher education programs in the visual arts provide opportunities for students to understand the importance of creating classroom environments in which

effective art instruction can take place. Such environments should be conducive to discussion, multiple interpretations and the open exchange of ideas.

Provision J: Teacher education programs in the visual arts provide students with the skills to develop interdisciplinary curriculum which emphasize the content of art as an essential component.

Provision K: Teacher education programs in the visual arts provide teacher candidates with a knowledge of assessment methods appropriate to the evaluation of the student work, their own teaching and their art program as a whole.

Provision L: Teacher education programs in the visual arts emphasize the importance of continuing self-evaluation and professional development as an essential component of effective teaching. Art teacher candidates are provided with many opportunities to reflect on their academic and clinical experiences throughout their preparation and understand that the process of reflection contributes to increased awareness of professional growth.

APPENDIX B

QUESTIONNAIRE

Art Teacher Preparation Survey

Your assistance is sought as part of a study about art teacher preparation in Texas colleges and universities. Please complete the following survey instrument and return to me no later than June 22, 2001. All information will be kept confidential.

_____Please check if you are interested in receiving a copy of the results of the study.

Your institution _____

Size of institution: (circle one)

A. Less than 5,000 students B. Between 5,000 and 10,000 students

C. Between 10,000 and 20,000 students D. More than 20,000 students

Number of full-time art faculty: (circle one)

A. 0 B. 1 through 4 C. 5 through 8

D. 9 through 12 E. 13 through 16 F. 17 and more art faculty

Number of full-time art education faculty: (circle one)

A. 0 B. 1 through 3 C. 4 through 6

D. 7 through 9 E. more than 10 art education faculty

Number of art education undergraduate students graduated last year: (circle one)

A. 0 B. 1 through 4 C. 5 through 8

D. 9 through 12 E. more than 13 art education undergrads graduated

Person responding to the Survey (circle one):

A. Faculty member in art B. Faculty member in art education

C. Faculty member in education D. Administrator of Art Program

E. Administrator of Education Program

Listed below are 20 provisions of an art teacher preparation program regarding art content knowledge and pedagogical content standards outlined in the National Art Education Association's Standards for Art Teacher Preparation. Read each provision carefully, referring to the enclosed standards and provisions for clarification. Circle the number that you believe best indicates the degree to which your program teaches each of the provisions.

Standard One (Art Content)

A) **Provide studio instruction that covers a range of different media**

not taught comprehensively taught

0 1 2 3 4 5

B) **Provide in depth studio instruction in one particular medium**

not taught comprehensively taught

0 1 2 3 4 5

C) **Provide art history instruction containing cultures, periods, places, and styles**

not taught comprehensively taught

0 1 2 3 4 5

D) **Provide art history instruction containing political, economic, and social issues**

not taught comprehensively taught

0 1 2 3 4 5

E) **Provide art history instruction containing gender and ethnicity issues**

not taught comprehensively taught

0 1 2 3 4 5

F) **Provide knowledge of art criticism in various analytical and interpretive methods**

not taught comprehensively taught

0 1 2 3 4 5

G) **Provide opportunities into aesthetic theories and philosophies of art to study functions and purposes of art in various cultures**

not taught comprehensively taught

0 1 2 3 4 5

H) **Provide beginning knowledge of traditional and contemporary theories of art and their impact on the creation of contemporary art forms**

not taught comprehensively taught

0 1 2 3 4 5

<u>Standard Two</u> (Pedagogical Content)

A) **Provide instruction that includes multiple theories and approaches to art instructio**

not taught comprehensively taught

0 1 2 3 4 5

B) **Provide instruction that develops a personal rationale for art in education**

not taught comprehensively taught

0 1 2 3 4 5

C) **Provide child, adolescent, and young adult developmental stage instruction**

not taught comprehensively taught

0 1 2 3 4 5

D) **Provide instruction that includes knowledge of child development in special needs populations**

not taught comprehensively taught

0 1 2 3 4 5

E) **Provide student teaching in a variety of classroom settings**

not taught comprehensively taught

0 1 2 3 4 5

F) **Students study theories of curriculum and instruction to reflect on and refine practice**

not taught comprehensively taught

0 1 2 3 4 5

G) **Provide opportunities to develop curriculum inclusive of the four disciplines (production, criticism, history, aesthetics) reflecting national, state and local standards**

not taught comprehensively taught

0 1 2 3 4 5

H) **Provide instruction that includes knowledge of methods, materials, and resources for various educational settings and for different levels of planning instruction**

not taught comprehensively taught

0 1 2 3 4 5

I) **Provide instruction into developing the importance of creating art classroom environments**

not taught comprehensively taught

0 1 2 3 4 5

J) **Provide students with the skills to develop interdisciplinary art curriculum**

not taught comprehensively taught

0 1 2 3 4 5

K) **Provide knowledge of assessment methods to evaluate student work, their own teaching and their own program**

not taught comprehensively taught

0 1 2 3 4 5

L) **Emphasize journal writing to reflect on academic and clinical experiences for effective teaching and professional growth**

not taught comprehensively taught

0 1 2 3 4 5

Are you currently revising your teacher preparation program in art education to address the Texas Art Standards?

Yes **No**

Please indicate the certification programs available at your institution (check all that apply):

All Level _____ Secondary_____

If your institution offers all level certification in art, indicate the number of courses that a student is required to take in:

_____ Art Education

_____Studio Art

_____Art History

_____Art Criticism

_____Professional Education

If your institution offers secondary certification in art, indicate the number of courses that a student is required to take in:

_____Art Education

_____Studio Art

_____Art History

_____Art Criticism

_____Professional Education

APPENDIX C

LETTER TO EDUCATOR

Dear Educator:

Your institution was listed as one of fifty-three in Texas that is approved by the State Board for Educator Certification to prepare art education teachers. Therefore, your assistance is sought as part of a study about art teacher preparation in Texas. Thank you for participating in this study. Your time and effort with regard to this research is greatly appreciated. All information gathered is strictly confidential. Participating institutions will be assigned and coded by number. Statistical data from this study will be used in terms of groups of institutions. Length of subject participation time is approximately 15 minutes.

Enclosed you will find a survey instrument based on the National Art Education Association=s Standards for the Art Education Program. The NAEA program standards outline 20 provisions, eight concerning art content knowledge and twelve concerning pedagogical content. The survey instrument is designed to determine the degree to which each provision in your art teacher certifying program is taught.

The NAEA program standards that form the content of this survey do not have the traditional credit hour to learning mastery requirements but instead state what the preparation program for art educators should offer its students and what the student should know and be able to do upon graduation.

Under each of the 20 provisions listed in this survey please circle one of the numbers that best indicates the degree to which your program teaches that provisions.

The survey instrument is derived from the NAEA=s Standards for the Art Education Program. For the purpose of brevity and clarity the 20 provisions were abridged to create this survey instrument. For more information on the provisions see the enclosed unabridged copy.

When the survey is completed please use the self-addressed stamped envelope to return only the survey instrument. If you have any questions regarding this research please do not hesitate to contact me.

Please complete the enclosed survey instrument and return to me no later than June 22, 2001.

Thank you,

APPENDIX D

HUMAN SUBJECT

Gary Breitenstein

9) The sources of subjects and data are derived from the 53 colleges and universities identified by the Texas State Board for Educator Certification as degree granting institutions for art teachers. This is the entire population of art teacher preparation programs in the state.

10) Prior to mailing the questionnaire, contact will be made to each of the 53 institutions identified by the State Board for Educator Certification. An email will be sent to Deans and Department Chairs seeking the person most familiar and knowledgeable with their art pre-service program. A contact list will be made from this initial communication then another email will be sent to those people who have been identified as most familiar with their art teacher preparation program. The email is as follows:

> I am conducting a research study about art pre-service teacher education programs in Texas as a part of my graduate study in art education at the University of North Texas. My supervising faculty member is D. Jack Davis. In a few weeks I will be seeking information about each pre-service program in art approved by the State Board for Educator Certification. I am seeking the name of a contact person at your institution who is knowledgeable and familiar with your pre-service program. Could you please email me the name, office address, office email address, and office telephone number of this person. If you have any questions or need additional information, please contact D. Jack Davis. His telephone number is 000-000-0000 or Gary Breitenstein at telephone number 000-000-0000 or email.

The following procedure will be employed in the collection of data: (a) the initial mailing of the questionnaire to personnel identified as being familiar with their program, (b) an email reminder after the second week, (c) a second mailing of the complete questionnaire after three weeks, and (d) the mailing of a postcard as a reminder to complete and send in the questionnaire after four weeks.

This is a descriptive research design. The instrument is a Likert questionnaire that was created using the 20 provisions that describe learning outcomes, which constitute the 1999 National Art Education Association (NAEA) Standards for Art Teacher Preparation. These 20 provisions will be known as the dependent variables.

For this study there are four independent variables that may cause differences among programs. The independent variables are: the size of the institution where the programs exist (student population); the number of full-time art faculty; the number of full-time art education faculty; and, the number of undergraduate art education students who graduated last year.

Research Questions:

What provisions of Standards 1 and 2 of the 1999 NAEA Standards for Art Teacher Preparation are taught in pre-service art teacher education programs in Texas?

Is there a significant difference in the provisions taught in the pre-service teacher education programs in art in Texas by: (1) the size of the institution where the program exists? (2) the number of full-time art faculty? (3) the number of full-time art education faculty? and (4) the number of undergraduate art education students who graduated last year?

What provisions of Standards 1 and 2 of the 1999 NAEA Standards for Art Teacher Preparation receive the most attention in the pre-service art teacher education programs in Texas? What provisions receive the least attention?

Is there a significant difference in the provisions that receive the most attention and that receive the least attention in pre-service teacher education programs in art in Texas by: (1) the size of the institution where the program exists? (2) the number of full-time art faculty? (3) the number of full-time art education faculty? and, (4) the number of undergraduate art education students who graduated last year?

What reasons compel respondents of programs to perceive that their program teaches a particular provision comprehensively?

11) Written consent is not to be obtained. Addressees have the option to not respond to the questionnaire.

12) Statistical data from this study will be used in terms of groups of institutions.

13) An examination of pre-service teacher education programs in art in Texas in relation to the 1999, National Art Education Association (NAEA) standards may identify variations in art pre-service programs regarding the number of standard provisions that are offered among art departments within the state. The data may formulate a description of a common art pre-service program in Texas through the evaluation of all art pre-service programs as they relate to the NAEA Standards for Art Teacher Preparation. A descriptive study could help art education faculty and administrators adjust and update their programs through the identification of program deficiencies and strengths in comparison to the national standards.

14) There are no risks involved for these programs.

APPENDIX E

INSTITUTIONAL SIZE BY STUDENT POPULATION

	< 5k													Between 5 & 10k			Between 10 & 20k			> 20k				
INST. Code	5	9	19	20	22	24	32	34	36	44	50	7	1	26	33	35	4	8	21	17	31	40	52	Rank
S1-A	5	3	5	3	4	4	5	3	5	4	4	3	4	4	5	5	5	5	4	5	5	5	3	98
S1-B	3	3	5	3	5	5	4	5	3	5	3	2	4	5	2	1	4	4	3	4	5	5	5	88
S1-C	5	3	5	2	4	2	4	5	3	5	4	2	5	4	5	5	4	5	3	4	5	5	4	93
S1-D	5	3	4	2	4	2	3	4	2	3	4	2	4	4	5	5	4	5	3	4	5	5	3	85
S1-E	5	2	3	1	3	0	2	5	2	1	2	1	4	4	5	4	4	5	3	4	5	5	3	73
S1-F	4	2	4	3	4	2	3	3	4	5	5	2	5	4	0	3	4	4	3	5	5	5	2	81
S1-G	4	3	4	2	4	2	3	3	3	5	3	2	4	4	4	4	3	4	3	5	5	5	4	83
S1-H	5	3	4	2	4	3	3	3	4	4	4	1	4	4	5	5	4	5	4	5	5	5	5	91
S2-A	4	4	5	3	4	0	0	3	4	4	5	2	4	3	4	5	5	5	4	5	5	5	3	86
S2-B	5	4	4	3	4	0	0	5	4	5	3	3	5	3	5	5	4	5	3	5	5	5	5	90
S2-C	4	3	4	3	4	0	0	4	4	5	5	3	4	3	5	4	4	5	4	5	5	5	4	87
S2-D	3	4	5	3	3	0	0	4	2	5	2	3	3	3	5	4	3	4	3	4	4	5	2	74
S2-E	3	5	5	3	4	0	1	5	3	4	5	2	5	3	5	5	5	5	4	5	5	5	5	92
S2-F	4	5	5	3	4	0	0	5	2	3	4	2	5	3	5	5	4	5	4	5	5	5	3	86
S2-G	5	4	4	4	4	1	0	5	4	5	5	4	5	4	5	3	5	5	4	5	5	5	5	96
S2-H	5	3	5	4	4	1	0	5	2	5	4	4	5	3	5	4	5	5	4	5	5	5	4	92
S2-I	5	2	5	4	4	0	0	5	3	5	4	3	3	3	5	5	4	5	4	5	5	5	4	88
S2-J	4	3	5	4	4	0	1	5	2	5	5	3	4	3	4	4	5	5	3	5	5	5	5	89
S2-K	4	2	5	3	4	0	0	4	3	5	5	2	5	3	5	4	4	4	4	4	5	5	4	84
S2-L	2	3	3	4	3	1	1	5	2	3	0	1	4	3	4	2	2	4	3	4	5	5	3	67
Total Score	84	64	89	59	78	23	30	86	61	86	76	47	86	70	88	82	82	94	70	93	99	100	76	
mean	3.36													4.00			4.08			4.59				

APPENDIX F

FULL-TIME ART FACULTY

	I through 4										5 through 8							13 through16			>17			
INST. Code	5	7	9	19	20	22	32	34	35	50	1	8	24	26	33	36	44	4	21	52	17	31	40	Rank
S1-A	5	3	3	5	3	4	5	3	5	4	4	5	4	4	5	5	4	5	4	3	5	5	5	98
S1-B	3	2	3	5	3	5	4	5	1	3	4	4	5	5	2	3	5	4	3	5	4	5	5	88
S1-C	5	2	3	5	2	4	4	5	5	4	5	5	2	4	5	3	5	4	3	4	4	5	5	93
S1-D	5	2	3	4	2	4	3	4	5	4	4	5	2	4	5	2	3	4	3	3	4	5	5	85
S1-E	5	1	2	3	1	3	2	5	4	2	4	5	0	4	5	2	1	4	3	3	4	5	5	73
S1-F	4	2	2	4	3	4	3	3	3	5	5	4	2	4	0	4	5	4	3	2	5	5	5	81
S1-G	4	2	3	4	2	4	3	3	4	3	4	4	2	4	4	3	5	3	3	4	5	5	5	83
S1-H	5	1	3	4	2	4	3	3	5	4	4	5	3	4	5	4	4	4	4	5	5	5	5	91
S2-A	4	2	4	5	3	4	0	3	5	5	4	5	0	3	4	4	4	5	4	3	5	5	5	86
S2-B	5	3	4	4	3	4	0	5	5	3	5	5	0	3	5	4	5	4	3	5	5	5	5	90
S2-C	4	3	3	4	3	4	0	4	4	5	4	5	0	3	5	4	5	4	4	4	5	5	5	87
S2-D	3	3	4	5	3	3	0	4	4	2	3	4	0	3	5	2	5	3	3	2	4	4	5	74
S2-E	3	2	5	5	3	4	1	5	5	5	5	5	0	3	5	3	4	5	4	5	5	5	5	92
S2-F	4	2	5	5	3	4	0	5	5	4	5	5	0	3	5	2	3	4	4	3	5	5	5	86
S2-G	5	4	4	4	4	4	0	5	3	5	5	5	1	4	5	4	5	5	4	5	5	5	5	96
S2-H	5	4	3	5	4	4	0	5	4	4	5	5	1	3	5	2	5	5	4	4	5	5	5	92
S2-I	5	3	2	5	4	4	0	5	5	4	3	5	0	3	5	3	5	4	4	4	5	5	5	88
S2-J	4	3	3	5	4	4	1	5	4	5	4	5	0	3	4	2	5	5	3	5	5	5	5	89
S2-K	4	2	2	5	3	4	0	4	4	5	5	4	0	3	5	3	5	4	4	4	4	5	5	84
S2-L	2	1	3	3	4	3	1	5	2	0	4	4	1	3	4	2	3	2	3	3	4	5	5	67
Total Score	84	47	64	89	59	78	30	86	82	76	86	94	23	70	88	61	86	82	70	76	93	99	100	
mean	3.47										3.66							3.77			4.86			

APPENDIX G

FULL-TIME ART EDUCATION FACULTY

	Zero					1 through 3																	4 through 6		
INST. Code	19	24	32	34	35	1	4	5	7	8	9	17	21	20	22	26	33	36	44	50	52	31	40	Rank
S1-A	5	4	5	3	5	4	5	5	3	5	3	5	4	3	4	4	5	5	4	4	3	5	5	98
S1-B	5	5	4	5	1	4	4	3	2	4	3	4	3	3	5	5	2	3	5	3	5	5	5	88
S1-C	5	2	4	5	5	5	4	5	2	5	3	4	3	2	4	4	5	3	5	4	4	5	5	93
S1-D	4	2	3	4	5	4	4	5	2	5	3	4	3	2	4	4	5	2	3	4	3	5	5	85
S1-E	3	0	2	5	4	4	4	5	1	5	2	4	3	1	3	4	5	2	1	2	3	5	5	73
S1-F	4	2	3	3	3	5	4	4	2	4	2	5	3	3	4	4	0	4	5	5	2	5	5	81
S1-G	4	2	3	3	4	4	3	4	2	4	3	5	3	2	4	4	4	3	5	3	4	5	5	83
S1-H	4	3	3	3	5	4	4	5	1	5	3	5	4	2	4	4	5	4	4	4	5	5	5	91
S2-A	5	0	0	3	5	4	5	4	2	5	4	5	4	3	4	3	4	4	4	5	3	5	5	86
S2-B	4	0	0	5	5	5	4	5	3	5	4	5	3	3	4	3	5	4	5	3	5	5	5	90
S2-C	4	0	0	4	4	4	4	4	3	5	3	5	4	3	4	3	5	4	5	5	4	5	5	87
S2-D	5	0	0	4	4	3	3	3	3	4	4	4	3	3	3	3	5	2	5	2	2	4	5	74
S2-E	5	0	1	5	5	5	5	3	2	5	5	5	4	3	4	3	5	3	4	5	5	5	5	92
S2-F	5	0	0	5	5	5	4	4	2	5	5	5	4	3	4	3	5	2	3	4	3	5	5	86
S2-G	4	1	0	5	3	5	5	5	4	5	4	5	4	4	4	4	5	4	5	5	5	5	5	96
S2-H	5	1	0	5	4	5	5	5	4	5	3	5	4	4	4	3	5	2	5	4	4	5	5	92
S2-I	5	0	0	5	5	3	4	5	3	5	2	5	4	4	4	3	5	3	5	4	4	5	5	88
S2-J	5	0	1	5	4	4	5	4	3	5	3	5	3	4	4	3	4	2	5	5	5	5	5	89
S2-K	5	0	0	4	4	5	4	4	2	4	2	4	4	3	4	3	5	3	5	5	4	5	5	84
S2-L	3	1	1	5	2	4	2	2	1	4	3	4	3	4	3	3	4	2	3	0	3	5	5	67
Total Score	89	23	30	86	82	86	82	84	47	94	64	93	70	59	78	70	88	61	86	76	76	99	100	
mean	3.18					3.77																4.98		

APPENDIX H

ART EDUCATION UNDERGRADUATE STUDENTS GRADUATED LAST YEAR

	Zero	1 through 4														5 through 8				9 through 12			>13	
INST. Code	5	1	4	7	8	9	19	20	22	24	32	34	36	44	50	17	21	26	33	31	35	52	40	Rank
S1-A	5	4	5	3	5	3	5	3	4	4	5	3	5	4	4	5	4	4	5	5	5	3	5	98
S1-B	3	4	4	2	4	3	5	3	5	5	4	5	3	5	3	4	3	5	2	5	1	5	5	88
S1-C	5	5	4	2	5	3	5	2	4	2	4	5	3	5	4	4	3	4	5	5	5	4	5	93
S1-D	5	4	4	2	5	3	4	2	4	2	3	4	2	3	4	4	3	4	5	5	5	3	5	85
S1-E	5	4	4	1	5	2	3	1	3	0	2	5	2	1	2	4	3	4	5	5	4	3	5	73
S1-F	4	5	4	2	4	2	4	3	4	2	3	3	4	5	5	5	3	4	0	5	3	2	5	81
S1-G	4	4	3	2	4	3	4	2	4	2	3	3	3	5	3	5	3	4	4	5	4	4	5	83
S1-H	5	4	4	1	5	3	4	2	4	3	3	3	4	4	4	5	4	4	5	5	5	5	5	91
S2-A	4	4	5	2	5	4	5	3	4	0	0	3	4	4	5	5	4	3	4	5	5	3	5	86
S2-B	5	5	4	3	5	4	4	3	4	0	0	5	4	5	3	5	3	3	5	5	5	5	5	90
S2-C	4	4	4	3	5	3	4	3	4	0	0	4	4	5	5	5	4	3	5	5	4	4	5	87
S2-D	3	3	3	3	4	4	5	3	3	0	0	4	2	5	2	4	3	3	5	4	4	2	5	74
S2-E	3	5	5	2	5	5	5	3	4	0	1	5	3	4	5	5	4	3	5	5	5	5	5	92
S2-F	4	5	4	2	5	5	5	3	4	0	0	5	2	3	4	5	4	3	5	5	5	3	5	86
S2-G	5	5	5	4	5	4	4	4	4	1	0	5	4	5	5	5	4	4	5	5	3	5	5	96
S2-H	5	5	5	4	5	3	5	4	4	1	0	5	2	5	4	5	4	3	5	5	4	4	5	92
S2-I	5	3	4	3	5	2	5	4	4	0	0	5	3	5	4	5	4	3	5	5	5	4	5	88
S2-J	4	4	5	3	5	3	5	4	4	0	1	5	2	5	5	5	3	3	4	5	4	5	5	89
S2-K	4	5	4	2	4	2	5	3	4	0	0	4	3	5	5	4	4	3	5	5	4	4	5	84
S2-L	2	4	2	1	4	3	3	4	3	1	1	5	2	3	0	4	3	3	4	5	2	3	5	67
Total Score	84	86	82	47	94	64	89	59	78	23	30	86	61	86	76	93	70	70	88	99	82	76	100	
mean	4.5	3.47														3.94				4.21			5.0	

APPENDIX I

FULL-TIME ART EDUCATION FACULTY

1 is Taught 0 is Not Taught

	Zero					1 through 3																4 through 6	
INST. Code	19	24	32	34	35	1	4	5	7	8	9	17	21	20	22	26	33	36	44	50	52	31	40
S1-A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S1-B	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S1-C	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S1-D	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S1-E	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S1-F	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	1
S1-G	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S1-H	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S2-A	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S2-B	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S2-C	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S2-D	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S2-E	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S2-F	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S2-G	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S2-H	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S2-I	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S2-J	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S2-K	1	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
S2-L	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1
Total Score	20	10	11	20	20	20	20	20	20	20	20	20	20	20	20	20	19	20	20	19	20	20	20
mean	.810					.994																1.00	

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